Investment Performance Review Period Ending December 31, 2018

Sunrise Police Retirement Plan



AndCo Consulting | (844) 44-ANDCO | AndCoConsulting.com

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As we start 2019, we first want to say "Thank you" for giving AndCo the opportunity to serve you. On behalf of our entire organization, we are extremely grateful for our client partnerships and we will continue working hard to maintain your trust and confidence. Our mission statement reads – "To represent the sole interest of our clients by redefining independence". We're happy to report we remain steadfast in this core belief and continue to build an organization and service model that is singularly focused and independent. This helps ensure all recommendations are truly in the best interest of our valued clients. We believe this approach will drive value for our client partnerships long into the future.

AndCo also remains committed to delivering high quality, customized services. As we start 2019, we are 89 employees strong advising approximately \$90 billion in client assets - both record highs for AndCo. In 2018 we hired 7 new team members including one consultant, two research professionals, one additional compliance officer, one technology administrator and two team members within our client solutions group. All hires were made to better service our clients.

2019 will represent another year of reinvestment in the organization to better serve our clients and make AndCo stronger. For example, we have already hired a new Senior Research Analyst bringing our dedicated research team to 15 professionals. As 2019 progresses, we are targeting additional hires in research, software development, content creation and our client solutions group. We will also be partnering with an external firm this year to conduct an in-depth client assessment to help ensure we are meeting the evolving needs of our clients and exceeding their service expectations. There will be more information regarding this survey from the firm and your consultant over the coming months. Finally, we just completed our annual Firmwide retreat. This retreat was a great opportunity for our firm to spend time together with colleagues and get a clear understanding of where the company is going, and more importantly, why we're headed in that direction. Since the inception of AndCo, the idea has been to make the firm a multigenerational organization owned and managed by its employees. As a result, since 2015, along with the strategic elements of our annual retreat, we also started the process of announcing new partners of the firm to foster this succession plan and today we have 8 partners controlling 100% of the company.

The evolution of our firm would not be possible without great partners like you. Our name reminds us who we work for every day: "Our Client" &Co. You will always be first in our service approach. As we continue to discuss updates with our firm, please know every decision is made by asking "How does this benefit our clients?" If it doesn't benefit you, we don't do it, it's that simple. We know our clients are facing many challenges and we want to be there to help get you through all environments. We are honored and humbled you have chosen AndCo as your partner. We don't take that relationship for granted and will continue to work tirelessly to exceed your expectations.

On behalf of AndCo, thank you for your valued partnership and the opportunity to serve you.

Mike Welker, CFA[®] President/CEO



Total Fund Compliance:	Yes	No
The total plan return equaled or exceeded the total plan benchmark over the trailing three and five year periods.		•
The three and five year total plan returns rank in the top 40% of the Fund's peers.		•
The total plan return equaled or exceeded the 7.7% target rate of return over the trailing three year period.		•
The total plan return equaled or exceeded the 7.7% target rate of return over the trailing five year period.		•

Equity Compliance:

Ceredex Large Cap Value	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.		•
The three and five year return ranks in the top 40% of its peers.		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Polen Capital	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **	•	
The three and five year return ranks in the top 40% of its peers. **	•	
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Rhumbline R1000G	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.**		•
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Mutual of America	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.		•
The three and five year return ranks in the top 40% of its peers.	•	
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	



Great Lakes SMID Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **	•	
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	
Vanguard R2000 Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **	•	
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	٠	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	
Vanguard International Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. *		•
The three and five year return ranks in the top 40% of its peers. *		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	

The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.

JPM International Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **		•
The three and five year return ranks in the top 40% of its peers. **		٠
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	



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Fixed Income Compliance:

GHA Fixed Income BCAB A+

GHA Fixed Income BCAB A+	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.	•	
The three and five year return ranks in the top 40% of its peers.	•	
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
Are all the fixed income securities ranked in the top "3" categories by Standard & Poor's or Moody's.	•	

GHA Fixed Income BCIGC	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.	•	
The three and five year return ranks in the top 40% of its peers.	•	
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
Are all the fixed income securities ranked in the top "3" categories by Standard & Poor's or Moody's.	•	

Real Estate Compliance:		
Barings Real Estate	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.**		•
The three and five year return ranks in the top 40% of its peers.**		•
ASB Real Estate	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.**		•

The three and five year return ranks in the top 40% of its peers.**

* Only 3 years available

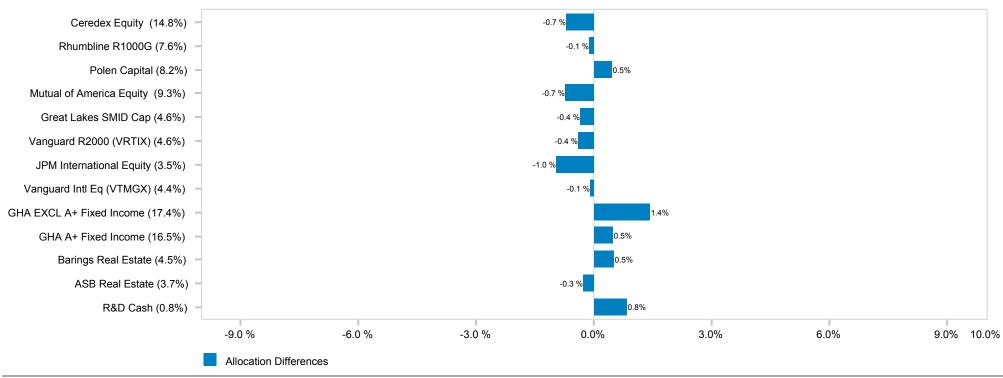
** Since Inception

Net perfomance used when available

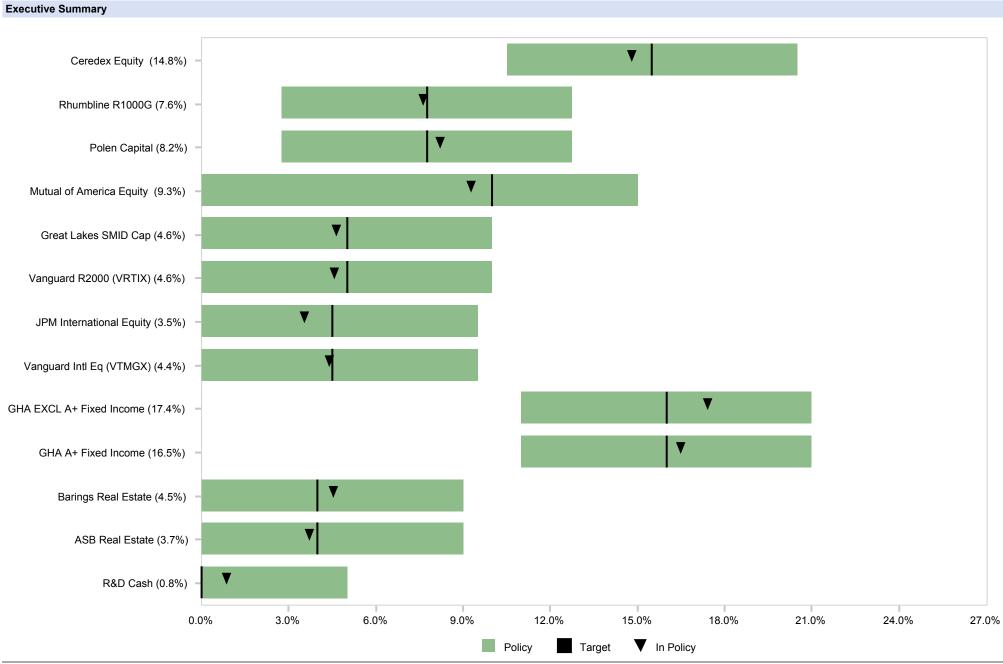


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Asset Allocation Compliance	• · · ·				
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal (\$000)
Total Fund Composite	146,317,894	100.0	100.0	0.0	-
Ceredex Equity	21,652,762	14.8	15.5	-0.7	1,026,512
Rhumbline R1000G	11,157,400	7.6	7.8	-0.1	182,236
Polen Capital	11,999,126	8.2	7.8	0.5	-659,489
Mutual of America Equity	13,560,331	9.3	10.0	-0.7	1,071,458
Great Lakes SMID Cap	6,776,411	4.6	5.0	-0.4	539,484
Vanguard R2000 (VRTIX)	6,705,366	4.6	5.0	-0.4	610,529
JPM International Equity	5,182,413	3.5	4.5	-1.0	1,401,893
Vanguard Intl Eq (VTMGX)	6,419,751	4.4	4.5	-0.1	164,554
GHA EXCL A+ Fixed Income	25,482,414	17.4	16.0	1.4	-2,071,551
GHA A+ Fixed Income	24,100,969	16.5	16.0	0.5	-690,106
Barings Real Estate	6,610,959	4.5	4.0	0.5	-758,244
ASB Real Estate	5,432,403	3.7	4.0	-0.3	420,313
R&D Cash	1,237,589	0.8	0.0	0.8	-1,237,589

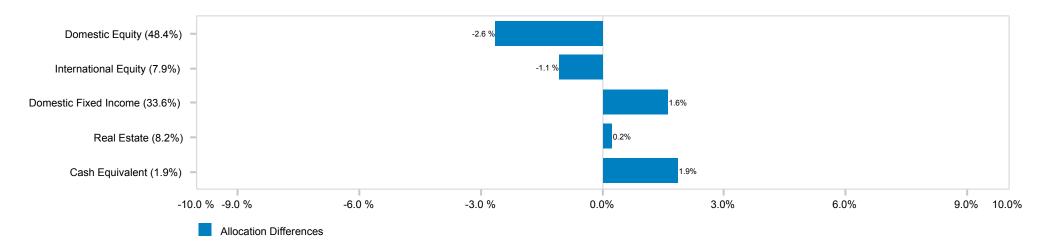


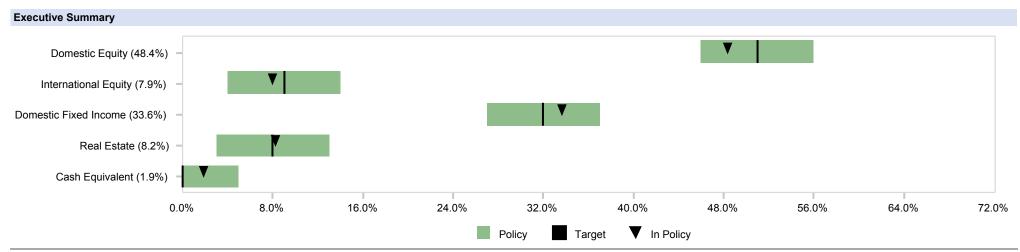






Asset Allocation Compliance					
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Domestic Equity	70,755,114	48.4	51.0	-2.6	3,867,012
International Equity	11,602,164	7.9	9.0	-1.1	1,566,447
Domestic Fixed Income	49,182,173	33.6	32.0	1.6	-2,360,447
Real Estate	12,043,362	8.2	8.0	0.2	-337,931
Cash Equivalent	2,735,081	1.9	0.0	1.9	-2,735,081
Total Fund	146,317,894	100.0	100.0	0.0	-

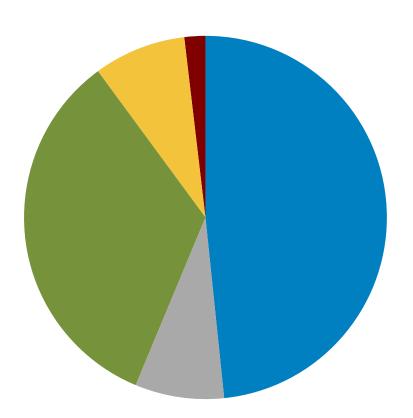






Asset Allocation Summary Total Fund Composite As of December 31, 2018

Asset Allocation By Segment as of September 30, 2018 : \$150,719,028



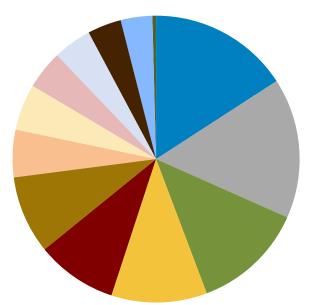
Asset Allocation By Segment as of December 31, 2018 : \$146,317,894

llocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
Domestic Equity	82,231,577	54.6	Domestic Equity	70,755,114	48.4
International Equity	12,306,904	8.2	International Equity	11,602,164	7.9
Domestic Fixed Income	42,461,164	28.2	Domestic Fixed Income	49,182,173	33.6
Real Estate	11,892,270	7.9	Real Estate	12,043,362	8.2
Cash Equivalent	1,827,113	1.2	Cash Equivalent	2,735,081	1.9

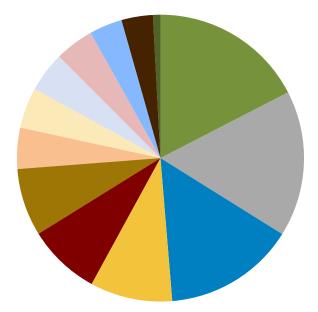


Asset Allocation Summary Total Fund Composite As of December 31, 2018

Asset Allocation By Manager as of September 30, 2018 : \$150,719,028



Asset Allocation By Manager as of December 31, 2018 : \$146,317,894



ocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
Ceredex Equity	23,882,645	15.8	GHA EXCL A+ Fixed Income	25,482,414	17.4
GHA A+ Fixed Income	23,823,667	15.8	GHA A+ Fixed Income	24,100,969	16.5
GHA EXCL A+ Fixed Income	18,998,385	12.6	Ceredex Equity	21,652,762	14.8
Mutual of America Equity	16,238,583	10.8	Mutual of America Equity	13,560,331	9.3
Polen Capital	13,743,383	9.1	Polen Capital	11,999,126	8.2
Rhumbline R1000G	13,262,466	8.8	Rhumbline R1000G	11,157,400	7.6
Great Lakes SMID Cap	8,064,909	5.4	Great Lakes SMID Cap	6,776,411	4.6
Vanguard R2000 (VRTIX)	7,880,759	5.2	Vanguard R2000 (VRTIX)	6,705,366	4.6
Vanguard Intl Eq (VTMGX)	6,564,686	4.4	Barings Real Estate	6,610,959	4.5
Barings Real Estate	6,520,896	4.3	Vanguard Intl Eq (VTMGX)	6,419,751	4.4
JPM International Equity	5,742,218	3.8	ASB Real Estate	5,432,403	3.7
ASB Real Estate	5,371,373	3.6	JPM International Equity	5,182,413	3.5
R&D Cash	617,899	0.4	R&D Cash	1,237,589	0.8
New Amsterdam Equity	7,158	0.0	New Amsterdam Equity	-	0.0



Comparative Performance Trailing Returns								
	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fund Composite (Gross)	-8.54 (57)	-3.92 (42)	-8.54 (57)	-3.92 (42)	5.74 (53)	4.66 (54)	5.88 (66)	01/01/1998
Total Fund Policy Index	-8.40 (53)	-3.77 (40)	-8.40 (53)	-3.77 (40)	5.81 (49)	4.97 (40)	5.98 (58)	
Difference	-0.14	-0.15	-0.14	-0.15	-0.07	-0.31	-0.10	
All Public Plans-Total Fund Median	-8.30	-4.42	-8.30	-4.42	5.77	4.72	6.12	
Total Fund Composite (Net)	-8.62	-4.25	-8.62	-4.25	5.38	4.28	5.53	01/01/1998
Total Fund Policy Index	-8.40	-3.77	-8.40	-3.77	5.81	4.97	5.98	
Difference	-0.22	-0.48	-0.22	-0.48	-0.43	-0.69	-0.45	
Total Equity Composite (Gross)	-14.90	-8.58	-14.90	-8.58	7.40	5.61	5.51	01/01/1998
Total Equity Policy Index	-14.96	-8.00	-14.96	-8.00	7.77	6.30	6.32	
Difference	0.06	-0.58	0.06	-0.58	-0.37	-0.69	-0.81	
Total Domestic Equity								
Ceredex Equity (Gross)	-13.27 (47)	-9.50 (60)	-13.27 (47)	-9.50 (60)	7.25 (51)	5.90 (61)	11.25 (56)	01/01/2012
Russell 1000 Value Index	-11.72 (29)	-8.27 (49)	-11.72 (29)	-8.27 (49)	6.95 (56)	5.95 (61)	11.02 (61)	
Difference	-1.55	-1.23	-1.55	-1.23	0.30	-0.05	0.23	
IM U.S. Large Cap Value Equity (SA+CF) Median	-13.57	-8.39	-13.57	-8.39	7.27	6.23	11.40	
Ceredex Equity (Net)	-13.39	-9.99	-13.39	-9.99	6.65	5.28	10.63	01/01/2012
Russell 1000 Value Index	-11.72	-8.27	-11.72	-8.27	6.95	5.95	11.02	
Difference	-1.67	-1.72	-1.67	-1.72	-0.30	-0.67	-0.39	
Polen Capital (Gross)	-12.53 (21)	8.78 (4)	-12.53 (21)	8.78 (4)	N/A	N/A	8.78 (4)	01/01/2018
Russell 1000 Growth Index	-15.89 (62)	-1.51 (54)	-15.89 (62)	-1.51 (54)	11.15 (29)	10.40 (31)	-1.51 (54)	
Difference	3.36	10.29	3.36	10.29	N/A	N/A	10.29	
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14	-1.17	-15.14	-1.17	10.19	9.66	-1.17	
Polen Capital (Net)	-12.68	8.27	-12.68	8.27	N/A	N/A	8.27	01/01/2018
Russell 1000 Growth Index	-15.89	-1.51	-15.89	-1.51	11.15	10.40	-1.51	
Difference	3.21	9.78	3.21	9.78	N/A	N/A	9.78	
Rhumbline R1000G (Gross)	-15.87 (61)	-1.50 (54)	-15.87 (61)	-1.50 (54)	N/A	N/A	-1.50 (54)	01/01/2018
Russell 1000 Growth Index	-15.89 (62)	-1.51 (54)	-15.89 (62)	-1.51 (54)	11.15 (29)	10.40 (31)	-1.51 (54)	
Difference	0.02	0.01	0.02	0.01	N/A	N/A	0.01	
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14	-1.17	-15.14	-1.17	10.19	9.66	-1.17	
Rhumbline R1000G (Net)	-15.88	-1.54	-15.88	-1.54	N/A	N/A	-1.54	01/01/2018
Russell 1000 Growth Index	-15.89	-1.51	-15.89	-1.51	11.15	10.40	-1.51	
Difference	0.01	-0.03	0.01	-0.03	N/A	N/A	-0.03	



	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Mutual of America Equity (Gross)	-17.24 (58)	-11.01 (53)	-17.24 (58)	-11.01 (53)	7.61 (30)	6.00 (28)	8.88 (14)	04/01/2008
S&P MidCap 400 Index	-17.28 (59)	-11.08 (54)	-17.28 (59)	-11.08 (54)	7.66 (30)	6.03 (28)	8.99 (13)	
Difference	0.04	0.07	0.04	0.07	-0.05	-0.03	-0.11	
IM U.S. Mid Cap Equity (MF) Median	-16.75	-10.70	-16.75	-10.70	5.82	4.63	7.45	
Mutual of America Equity (Net)	-17.26	-11.09	-17.26	-11.09	7.53	5.93	8.80	04/01/2008
S&P MidCap 400 Index	-17.28	-11.08	-17.28	-11.08	7.66	6.03	8.99	
Difference	0.02	-0.01	0.02	-0.01	-0.13	-0.10	-0.19	
Great Lakes SMID Cap (Gross)	-17.55 (40)	N/A	-17.55 (40)	N/A	N/A	N/A	-18.81 (41)	09/01/2018
Russell 2500 Index	-18.49 (62)	-10.00 (55)	-18.49 (62)	-10.00 (55)	7.32 (62)	5.15 (86)	-19.72 (63)	
Difference	0.94	N/A	0.94	N/A	N/A	N/A	0.91	
IM U.S. SMID Cap Core Equity (SA+CF) Median	-18.23	-9.85	-18.23	-9.85	7.54	6.14	-19.35	
Great Lakes SMID Cap (Net)	-17.59	N/A	-17.59	N/A	N/A	N/A	-18.85	09/01/2018
Russell 2500 Index	-18.49	-10.00	-18.49	-10.00	7.32	5.15	-19.72	
Difference	0.90	N/A	0.90	N/A	N/A	N/A	0.87	
/anguard R2000 (VRTIX) (Net)	-20.18 (52)	N/A	-20.18 (52)	N/A	N/A	N/A	-22.10 (46)	09/01/2018
Russell 2000 Index	-20.20 (54)	-11.01 (45)	-20.20 (54)	-11.01 (45)	7.36 (46)	4.41 (44)	-22.12 (46)	
Difference	0.02	N/A	0.02	N/A	N/A	N/A	0.02	
IM U.S. Small Cap Core Equity (MF) Median	-20.15	-11.94	-20.15	-11.94	6.93	3.74	-22.50	
Fotal International Equity								
/anguard Intl Eq (VTMGX) (Net)	-13.06 (61)	-14.46 (34)	-13.06 (61)	-14.46 (34)	3.46 (52)	0.85 (43)	3.84 (30)	07/01/2013
MSCI EAFE Index	-12.50 (53)	-13.36 (24)	-12.50 (53)	-13.36 (24)	3.38 (52)	1.00 (40)	4.00 (27)	
Difference	-0.56	-1.10	-0.56	-1.10	0.08	-0.15	-0.16	
IM International Equity (MF) Median	-12.23	-16.01	-12.23	-16.01	3.52	0.50	2.88	
JPM International Equity (Net)	-9.75 (35)	-16.30 (64)	-9.75 (35)	-16.30 (64)	2.76 (76)	N/A	4.16 (73)	10/01/2015
MSCI EAFE Index	-12.50 (55)	-13.36 (33)	-12.50 (55)	-13.36 (33)	3.38 (68)	1.00 (73)	4.60 (68)	
Difference	2.75	-2.94	2.75	-2.94	-0.62	N/A	-0.44	
IM International Equity (SA+CF) Median	-11.87	-14.86	-11.87	-14.86	4.84	2.07	5.95	



Comparative Performance Total Fund

As of December 31, 2018

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fixed Income Composite	1.40	1.48	1.40	1.48	2.51	3.01	5.51	01/01/1998
Total Fixed Income Policy Index	1.84	0.67	1.84	0.67	1.73	2.12	4.24	
Difference	-0.44	0.81	-0.44	0.81	0.78	0.89	1.27	
GHA A+ Fixed Income (Gross)	1.37 (54)	1.29 (6)	1.37 (54)	1.29 (6)	2.69 (36)	3.32 (12)	5.42 (2)	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	2.03 (8)	0.47 (21)	2.03 (8)	0.47 (21)	1.75 (97)	2.38 (97)	3.72 (96)	
Difference	-0.66	0.82	-0.66	0.82	0.94	0.94	1.70	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.40	0.07	1.40	0.07	2.48	2.86	4.38	
GHA A+ Fixed Income (Net)	1.31	1.04	1.31	1.04	2.43	3.07	5.16	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	2.03	0.47	2.03	0.47	1.75	2.38	3.72	
Difference	-0.72	0.57	-0.72	0.57	0.68	0.69	1.44	
GHA EXCL A+ Fixed Income (Gross)	1.42 (45)	1.67 (7)	1.42 (45)	1.67 (7)	2.33 (21)	2.64 (16)	5.28 (7)	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.65 (24)	0.88 (57)	1.65 (24)	0.88 (57)	1.70 (85)	1.86 (87)	4.35 (90)	
Difference	-0.23	0.79	-0.23	0.79	0.63	0.78	0.93	
IM U.S. Intermediate Duration (SA+CF) Median	1.39	0.95	1.39	0.95	1.99	2.16	4.68	
GHA EXCL A+ Fixed Income (Net)	1.38	1.43	1.38	1.43	2.25	2.59	5.26	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.65	0.88	1.65	0.88	1.70	1.86	4.35	0 110 11 1000
Difference	-0.27	0.55	-0.27	0.55	0.55	0.73	0.91	
Total Real Estate (Gross)	1.55 (78)	7.51 (88)	1.55 (78)	7.51 (88)	N/A	N/A	7.04 (N/A)	06/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.62 (76)	8.25 (66)	1.62 (76)	8.25 (66)	8.44 (52)	10.52 (63)	8.99 (N/A)	00/01/2011
Difference	-0.08	-0.74	-0.08	-0.74	N/A	N/A	-1.95	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	8.71	1.80	8.71	8.66	10.82	N/A	
Barings Real Estate (Gross)	1.62 (75)	7.42 (90)	1.62 (75)	7.42 (90)	N/A	N/A	7.82 (70)	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.62 (76)	8.25 (66)	1.62 (76)	8.25 (66)	8.44 (52)	10.52 (63)	8.28 (61)	01/01/2017
Difference	0.00	-0.83	0.00	-0.83	N/A	N/A	-0.46	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	8.71	1.80	8.71	8.66	10.82	8.62	
	1.00	C 20	1.00	C 20	N1/A	N1/A	C C 0	07/01/2017
Barings Real Estate (Net)	1.38	6.30	1.38	6.30	N/A	N/A	6.68	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.62	8.25	1.62	8.25	8.44	10.52	8.28	
Difference	-0.24	-1.95	-0.24	-1.95	N/A	N/A	-1.60	
ASB Real Estate (Gross)	1.45 (91)	7.61 (85)	1.45 (91)	7.61 (85)	N/A	N/A	7.00 (100)	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.62 (76)	8.25 (66)	1.62 (76)	8.25 (66)	8.44 (52)	10.52 (63)	8.28 (61)	
Difference	-0.17	-0.64	-0.17	-0.64	N/A	N/A	-1.28	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	8.71	1.80	8.71	8.66	10.82	8.62	
ASB Real Estate (Net)	1.14	6.29	1.14	6.29	N/A	N/A	5.69	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.62	8.25	1.62	8.25	8.44	10.52	8.28	
Difference	-0.48	-1.96	-0.48	-1.96	N/A	N/A	-2.59	

Comparative Performance Fiscal Year to Date									
	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total Fund Composite (Gross)	-8.54 (57)	8.38 (46)	11.66 (62)	9.56 (53)	0.60 (26)	9.19 (71)	13.87 (26)	18.40 (38)	1.31 (26)
Total Fund Policy Index	-8.40 (53)	9.00 (33)	10.90 (76)	10.01 (39)	0.59 (27)	9.47 (65)	13.44 (35)	18.12 (45)	1.19 (28)
Difference	-0.14	-0.62	0.76	-0.45	0.01	-0.28	0.43	0.28	0.12
All Public Plans-Total Fund Median	-8.30	8.14	12.19	9.66	-0.45	10.24	12.51	17.94	0.29
Total Fund Composite (Net)	-8.62	8.01	11.28	9.25	0.22	8.71	13.36	17.84	0.85
Total Fund Policy Index	-8.40	9.00	10.90	10.01	0.59	9.47	13.44	18.12	1.19
Difference	-0.22	-0.99	0.38	-0.76	-0.37	-0.76	-0.08	-0.28	-0.34
Total Equity Composite (Gross)	-14.90	13.02	19.33	13.45	-1.15	12.14	23.86	25.54	-0.21
Total Equity Policy Index	-14.96	14.65	18.53	13.79	-1.26	13.94	24.01	27.57	-1.42
Difference	0.06	-1.63	0.80	-0.34	0.11	-1.80	-0.15	-2.03	1.21
Total Domestic Equity									
Ceredex Equity (Gross)	-13.27 (47)	10.74 (63)	17.71 (54)	16.57 (23)	-5.35 (71)	17.16 (65)	26.65 (25)	N/A	N/A
Russell 1000 Value Index	-11.72 (29)	9.45 (77)	15.12 (76)	16.19 (26)	-4.42 (65)	18.89 (42)	22.30 (60)	30.92 (26)	-1.89 (62)
Difference	-1.55	1.29	2.59	0.38	-0.93	-1.73	4.35	N/A	N/A
IM U.S. Large Cap Value Equity (SA+CF) Median	-13.57	11.80	17.91	13.17	-3.28	18.36	23.73	28.16	-0.97
Ceredex Equity (Net)	-13.39	10.15	17.06	15.91	-5.89	16.50	25.93	N/A	N/A
Russell 1000 Value Index	-11.72	9.45	15.12	16.19	-4.42	18.89	22.30	30.92	-1.89
Difference	-1.67	0.70	1.94	-0.28	-1.47	-2.39	3.63	N/A	N/A
GHA LCG (Gross)	N/A	N/A	21.48 (41)	13.71 (24)	1.52 (72)	17.32 (60)	12.80 (99)	27.88 (49)	3.11 (36)
Russell 1000 Growth Index	-15.89 (62)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	N/A	N/A	-0.46	-0.05	-1.65	-1.83	-6.47	-1.31	-0.67
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14	24.42	20.81	11.64	3.60	18.18	20.25	27.65	1.38
Polen Capital (Gross)	-12.53 (21)	N/A							
Russell 1000 Growth Index	-15.89 (62)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	3.36	N/A							
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14	24.42	20.81	11.64	3.60	18.18	20.25	27.65	1.38
Polen Capital (Net)	-12.68 (22)	N/A							
Russell 1000 Growth Index	-15.89 (62)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	3.21	N/A							
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14	24.42	20.81	11.64	3.60	18.18	20.25	27.65	1.38



Comparative Performance Total Fund

As of December 31, 2018

		Oct-2017	Oct-2016	Oct-2015	Oct-2014	Oct-2013	Oct-2012	Oct-2011	Oct-2010
	FYTD	To Sep-2018	To Sep-2017	To Sep-2016	To Sep-2015	To Sep-2014	To Sep-2013	To Sep-2012	To Sep-2011
Rhumbline R1000G (Gross)	-15.87 (61)	N/A							
Russell 1000 Growth Index	-15.89 (62)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	0.02	N/A							
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14	24.42	20.81	11.64	3.60	18.18	20.25	27.65	1.38
Rhumbline R1000G (Net)	-15.88	N/A							
Russell 1000 Growth Index	-15.89	26.30	21.94	13.76	3.17	19.15	19.27	29.19	3.78
Difference	0.01	N/A							
Mutual of America Equity (Gross)	-17.24 (58)	14.25 (44)	17.31 (41)	15.25 (15)	1.41 (35)	11.52 (52)	27.64 (43)	28.61 (26)	-1.27 (39)
S&P MidCap 400 Index	-17.28 (59)	14.21 (44)	17.52 (40)	15.33 (15)	1.40 (36)	11.82 (49)	27.68 (43)	28.54 (27)	-1.28 (39)
Difference	0.04	0.04	-0.21	-0.08	0.01	-0.30	-0.04	0.07	0.01
IM U.S. Mid Cap Equity (MF) Median	-16.75	13.11	16.52	10.77	-0.37	11.67	27.22	25.46	-2.46
Mutual of America Equity (Net)	-17.26	14.15	17.23	15.17	1.35	11.48	27.55	28.54	-1.32
S&P MidCap 400 Index	-17.28	14.21	17.52	15.33	1.40	11.82	27.68	28.54	-1.28
Difference	0.02	-0.06	-0.29	-0.16	-0.05	-0.34	-0.13	0.00	-0.04
New Amsterdam Equity (Gross)	N/A	N/A	20.56 (51)	8.62 (94)	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-18.49 (39)	16.19 (13)	17.79 (77)	14.44 (62)	0.38 (55)	8.97 (31)	29.79 (64)	30.93 (52)	-2.22 (43)
Difference	N/A	N/A	2.77	-5.82	N/A	N/A	N/A	N/A	N/A
IM U.S. Small Cap Value Equity (SA+CF) Median	-19.21	9.10	20.61	15.70	0.82	6.95	30.96	31.08	-2.85
New Amsterdam Equity (Net)	N/A	N/A	19.99	8.11	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-18.49	16.19	17.79	14.44	0.38	8.97	29.79	30.93	-2.22
Difference	N/A	N/A	2.20	-6.33	N/A	N/A	N/A	N/A	N/A
Great Lakes SMID Cap (Gross)	-17.55 (40)	N/A							
Russell 2500 Index	-18.49 (62)	16.19 (57)	17.79 (71)	14.44 (35)	0.38 (74)	8.97 (72)	29.79 (58)	30.93 (41)	-2.22 (71)
Difference	0.94	N/A							
IM U.S. SMID Cap Core Equity (SA+CF) Median	-18.23	16.29	18.86	12.61	2.28	11.29	30.27	30.15	-0.86
Great Lakes SMID Cap (Net)	-17.59	N/A							
Russell 2500 Index	-18.49	16.19	17.79	14.44	0.38	8.97	29.79	30.93	-2.22
Difference	0.90	N/A							
Vanguard R2000 (VRTIX) (Net)	-20.18 (52)	N/A							
Russell 2000 Index	-20.20 (54)	15.24 (35)	20.74 (43)	15.47 (38)	1.25 (51)	3.93 (65)	30.06 (45)	31.91 (30)	-3.53 (44)
Difference	0.02	N/A							
IM U.S. Small Cap Core Equity (MF) Median	-20.15	12.77	20.25	14.20	1.37	4.77	29.41	28.74	-4.37



Comparative Performance

Total Fund

As of December 31, 2018

	FYTD	Oct-2017 To	Oct-2016 To	Oct-2015 To	Oct-2014 To	Oct-2013 To	Oct-2012 To	Oct-2011 To	Oct-2010 To
		Sep-2018	Sep-2017	Sep-2016	Sep-2015	Sep-2014	Sep-2013	Sep-2012	Sep-2011
Total International Equity									
Vanguard Intl Eq (VTMGX) (Net)	-13.06 (61)	2.78 (24)	19.25 (52)	8.03 (59)	-7.90 (45)	4.01 (54)	N/A	N/A	N/A
MSCI EAFE Index	-12.50 (53)	3.25 (21)	19.65 (48)	7.06 (65)	-8.27 (47)	4.70 (44)	24.29 (19)	14.33 (66)	-8.94 (24)
Difference	-0.56	-0.47	-0.40	0.97	0.37	-0.69	N/A	N/A	N/A
IM International Equity (MF) Median	-12.23	0.08	19.36	9.34	-8.75	4.27	17.81	16.20	-12.09
JPM International Equity (Net)	-9.75 (35)	-3.43 (86)	18.60 (70)	10.45 (56)	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index	-12.50 (55)	3.25 (34)	19.65 (61)	7.06 (76)	-8.27 (50)	4.70 (63)	24.29 (33)	14.33 (71)	-8.94 (45)
Difference	2.75	-6.68	-1.05	3.39	N/A	N/A	N/A	N/A	N/A
IM International Equity (SA+CF) Median	-11.87	1.44	21.00	11.54	-8.30	5.83	20.31	17.27	-9.59

Comparative Performance Total Fund

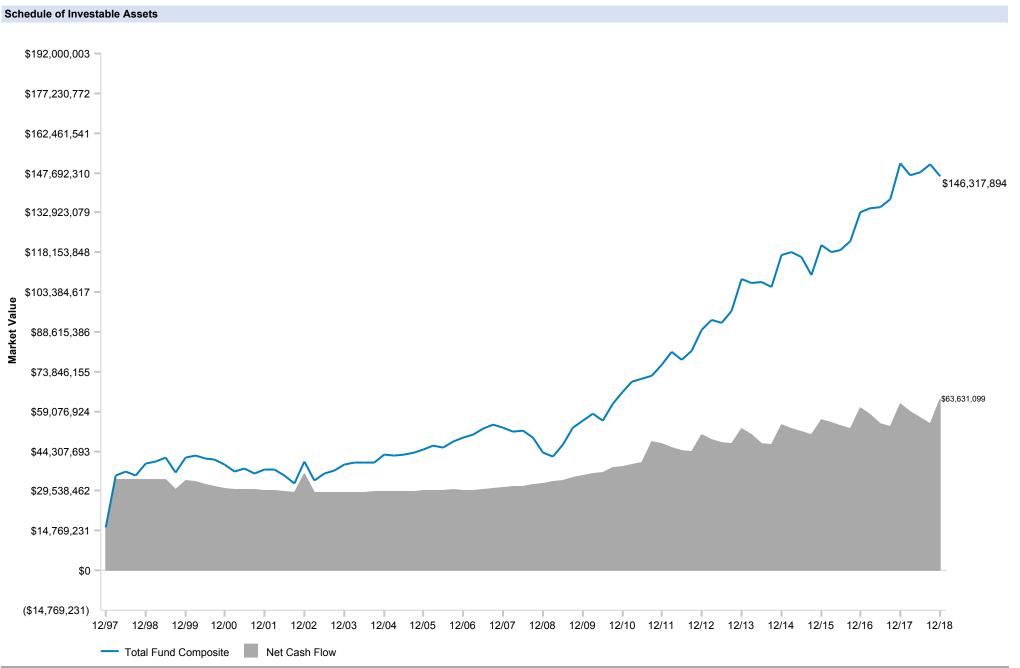
As of December 31, 2018

	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total Fixed Income Composite (Gross)	1.40	0.58	0.36	4.79	3.51	5.32	0.01	10.47	3.21
Total Fixed Income Policy Index	1.84	-1.12	-0.09	4.01	3.06	2.79	-1.09	4.40	4.35
Difference	-0.44	1.70	0.45	0.78	0.45	2.53	1.10	6.07	-1.14
GHA A+ Fixed Income (Gross)	1.37 (54)	0.74 (4)	0.23 (71)	5.53 (62)	3.53 (12)	5.87 (12)	-0.17 (14)	10.68 (3)	4.02 (92)
BImbg. Barc. U.S. Aggregate: A+	2.03 (8)	-1.28 (95)	-0.42 (100)	4.50 (96)	3.44 (17)	3.39 (96)	-1.68 (80)	4.40 (98)	5.30 (47)
Difference	-0.66	2.02	0.65	1.03	0.09	2.48	1.51	6.28	-1.28
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.40	-0.73	0.62	5.67	3.02	4.52	-1.22	6.62	5.26
GHA A+ Fixed Income (Net)	1.31	0.48	-0.02	5.27	3.27	5.62	-0.43	10.42	3.77
Blmbg. Barc. U.S. Aggregate: A+	2.03	-1.28	-0.42	4.50	3.44	3.39	-1.68	4.40	5.30
Difference	-0.72	1.76	0.40	0.77	-0.17	2.23	1.25	6.02	-1.53
GHA EXCL A+ Fixed Income (Gross)	1.42 (45)	0.42 (13)	0.52 (67)	4.03 (41)	3.45 (7)	4.56 (11)	0.18 (26)	9.98 (3)	2.13 (96)
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.65 (24)	-0.96 (97)	0.23 (88)	3.52 (76)	2.68 (51)	2.20 (85)	-0.50 (66)	4.40 (81)	3.40 (62)
Difference	-0.23	1.38	0.29	0.51	0.77	2.36	0.68	5.58	-1.27
IM U.S. Intermediate Duration (SA+CF) Median	1.39	-0.37	0.69	3.90	2.70	2.88	-0.27	5.56	3.60
GHA EXCL A+ Fixed Income (Net)	1.38	0.22	0.52	4.03	3.45	4.56	0.18	9.98	2.13
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.65	-0.96	0.23	3.52	2.68	2.20	-0.50	4.40	3.40
Difference	-0.27	1.18	0.29	0.51	0.77	2.36	0.68	5.58	-1.27
Total Real Estate (Gross)	1.55 (78)	7.85 (79)	N/A						
NCREIF Fund Index-Open End Diversified Core (EW)	1.62 (76)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (66)	18.03 (44)
Difference	-0.08	-0.97	N/A						
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	9.04	8.29	11.32	15.45	12.78	13.18	12.90	16.96
Barings Real Estate (Gross)	1.62 (75)	7.51 (92)	N/A						
NCREIF Fund Index-Open End Diversified Core (EW)	1.62 (76)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (66)	18.03 (44)
Difference	0.00	-1.31	N/A						
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	9.04	8.29	11.32	15.45	12.78	13.18	12.90	16.96
Barings Real Estate (Net)	1.38	6.36	N/A						
NCREIF Fund Index-Open End Diversified Core (EW)	1.62	8.82	7.81	10.62	14.71	12.39	12.47	11.77	18.03
Difference	-0.24	-2.46	N/A						
ASB Real Estate (Gross)	1.45 (91)	8.26 (70)	N/A						
NCREIF Fund Index-Open End Diversified Core (EW)	1.62 (76)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (66)	18.03 (44)
Difference	-0.17	-0.56	N/A						
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	9.04	8.29	11.32	15.45	12.78	13.18	12.90	16.96
ASB Real Estate (Net)	1.14	6.92	N/A						
NCREIF Fund Index-Open End Diversified Core (EW)	1.62	8.82	7.81	10.62	14.71	12.39	12.47	11.77	18.03
Difference	-0.48	-1.90	N/A						



Financial Reconciliation Quarter t	o Date				
	Market Value 10/01/2018	Apprec./ Deprec.	Income	Management Fees	Market Value 12/31/2018
Ceredex Equity	23,882,645	-3,452,608	148,951	-32,581	21,652,762
Polen Capital	13,743,383	-1,749,729	28,270	-20,788	11,999,126
Rhumbline R1000G	13,262,466	-2,105,066	-	-1,477	11,157,400
Mutual of America Equity	16,238,583	-2,892,409	69,267	-2,735	13,560,331
New Amsterdam Equity	7,158	-	5	-10,741	-
Great Lakes SMID Cap	8,064,909	-1,471,473	31,779	-4,010	6,776,411
Vanguard R2000 (VRTIX)	7,880,759	-1,704,329	28,936	-	6,705,366
Vanguard Intl Eq (VTMGX)	6,564,686	-1,009,533	64,598	-	6,419,751
JPM International Equity	5,742,218	-559,806	-	-	5,182,413
GHA A+ Fixed Income	23,823,667	144,977	182,065	-14,884	24,100,969
GHA EXCL A+ Fixed Income	18,998,385	196,581	170,076	-11,866	25,482,414
Barings Real Estate	6,520,896	56,871	49,087	-15,895	6,610,959
ASB Real Estate	5,371,373	29,388	48,389	-16,748	5,432,403
R&D Cash	617,899	-	5,484	-	1,237,589
Total Fund Composite	150,719,028	-14,517,135	826,906	-131,726	146,317,894







Schedule of Investa	Beginning			Net		Ending	
Periods Ending	Market Value \$	Contributions \$	Withdrawals \$	Cash Flow \$	Gain/Loss \$	Market Value \$	%Return
Dec-1997		-	-	-	-	15,998,300	N/A
Mar-1998	15,998,300	17,675,917	-	17,675,917	1,591,809	35,266,026	9.95
Jun-1998	35,266,026	237,384	-	237,384	1,275,793	36,779,203	3.61
Sep-1998	36,779,203	-	34,946	-34,946	-1,362,667	35,381,590	-3.71
Dec-1998	35,381,590	-	84,404	-84,404	4,428,727	39,725,913	12.53
Mar-1999	39,725,913	45,809	-	45,809	571,996	40,343,718	1.44
Jun-1999	40,343,718	-	83,881	-83,881	1,732,162	41,991,999	4.30
Sep-1999	41,991,999	-	3,513,461	-3,513,461	-1,997,343	36,481,195	-4.88
Dec-1999	36,481,195	3,141,344	-	3,141,344	2,286,800	41,909,339	6.31
Mar-2000	41,909,339	-	531,269	-531,269	1,445,328	42,823,398	3.47
Jun-2000	42,823,398	-	986,106	-986,106	-362,829	41,474,463	-0.86
Sep-2000	41,474,463	-	690,560	-690,560	215,472	40,999,375	0.52
Dec-2000	40,999,375	-	577,326	-577,326	-951,616	39,470,433	-2.34
Mar-2001	39,470,433	-	393,550	-393,550	-2,158,027	36,918,856	-5.50
Jun-2001	36,918,856	-	225,319	-225,319	1,167,090	37,860,627	3.17
Sep-2001	37,860,627	40,297	-	40,297	-2,075,500	35,825,424	-5.47
Dec-2001	35,825,424	-	184,219	-184,219	1,729,006	37,370,211	4.84
Mar-2002	37,370,211	-	223,926	-223,926	278,998	37,425,283	0.75
Jun-2002	37,425,283	-	348,391	-348,391	-1,937,612	35,139,280	-5.21
Sep-2002	35,139,280	-	221,225	-221,225	-2,602,605	32,315,450	-7.44
Dec-2002	32,315,450	6,836,371	-	6,836,371	1,438,642	40,590,463	4.41
Mar-2003	40,590,463	-	6,795,099	-6,795,099	-410,557	33,384,807	-1.17
Jun-2003	33,384,807	-	197,693	-197,693	2,866,553	36,053,667	8.62
Sep-2003	36,053,667	252,293	-	252,293	741,955	37,047,915	2.05
Dec-2003	37,047,915	-	21,113	-21,113	2,460,444	39,487,246	6.67
Mar-2004	39,487,246	-	134,073	-134,073	822,971	40,176,144	2.09
Jun-2004	40,176,144	1,194	-	1,194	3,493	40,180,831	-0.01
Sep-2004	40,180,831	397,660	-	397,660	-339,911	40,238,580	-0.85
Dec-2004	40,238,580	54,577	-	54,577	2,802,548	43,095,705	6.96
Mar-2005	43,095,705	-	186,709	-186,709	-417,831	42,491,165	-0.98
Jun-2005	42,491,165	-	34,346	-34,346	731,050	43,187,869	1.72
Sep-2005	43,187,869	-	43,678	-43,678	503,689	43,647,880	1.17
Dec-2005	43,647,880	423,649	-	423,649	950,170	45,021,699	2.19
Mar-2006	45,021,699	51,421	-	51,421	1,403,105	46,476,225	3.11
lun-2006	46,476,225	-	83,590	-83,590	-718,538	45,674,097	-1.55
Sep-2006	45,674,097	586,713	-	586,713	1,503,788	47,764,598	3.27
Dec-2006	47,764,598	-	322,499	-322,499	1,978,220	49,420,319	4.19
Mar-2007	49,420,319	45,644	-	45,644	895,483	50,361,446	1.82
Jun-2007	50,361,446	243,909	-	243,909	1,901,240	52,506,595	3.78
Sep-2007	52,506,595	400,316	-	400,316	1,166,875	54,073,786	2.20



Periods Ending	Beginning Market Value \$	Contributions \$	Withdrawals \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Dec-2007	54,073,786	190,416	-	190,416	-1,264,986	52,999,216	-2.33
Mar-2008	52,999,216	475,161	-	475,161	-1,773,644	51,700,733	-3.33
Jun-2008	51,700,733	157,090	-	157,090	19,456	51,877,279	0.06
Sep-2008	51,877,279	729,736	-	729,736	-3,090,400	49,516,615	-5.88
Dec-2008	49,516,615	272,688	-	272,688	-5,953,060	43,836,243	-12.10
Mar-2009	43,836,243	645,560	-	645,560	-2,154,563	42,327,240	-4.63
Jun-2009	42,327,240	466,248	-	466,248	4,028,207	46,821,695	9.51
Sep-2009	46,821,695	1,231,187	-	1,231,187	4,915,363	52,968,245	10.42
Dec-2009	52,968,245	728,073	-	728,073	2,085,980	55,782,298	3.90
Mar-2010	55,782,298	530,170	-	530,170	2,014,347	58,326,815	3.60
Jun-2010	58,326,815	495,784	-	495,784	-3,139,138	55,683,461	-5.38
Sep-2010	55,683,461	1,660,776	-	1,660,776	4,453,702	61,797,939	7.87
Dec-2010	61,797,939	651,202	-	651,202	4,073,218	66,522,359	6.59
Mar-2011	66,522,359	634,816	-	634,816	2,936,677	70,093,852	4.43
Jun-2011	70,093,852	665,257	-	665,257	532,225	71,291,334	0.76
Sep-2011	71,291,334	7,862,053	-	7,862,053	-6,957,257	72,196,130	-9.67
Dec-2011	72,196,130	-	654,876	-654,876	4,773,351	76,314,605	6.63
Mar-2012	76,314,605	-	1,466,628	-1,466,628	6,525,345	81,373,322	8.63
Jun-2012	81,373,322	-	1,210,329	-1,210,329	-1,962,942	78,200,051	-2.42
Sep-2012	78,200,051	-	328,909	-328,909	3,699,212	81,570,354	4.75
Dec-2012	81,570,354	6,149,365	-	6,149,365	1,463,069	89,182,788	1.61
Mar-2013	89,182,788	-	1,674,077	-1,674,077	5,563,247	93,071,958	6.29
Jun-2013	93,071,958	-	1,198,519	-1,198,519	117,987	91,991,426	0.15
Sep-2013	91,991,426	-	302,113	-302,113	4,852,470	96,541,783	5.28
Dec-2013	96,541,783	5,486,468	-	5,486,468	6,283,251	108,311,502	6.10
Mar-2014	108,311,502	-	2,359,425	-2,359,425	918,503	106,870,580	0.88
Jun-2014	106,870,580	-	3,191,614	-3,191,614	3,629,450	107,308,416	3.49
Sep-2014	107,308,416	-	452,620	-452,620	-1,543,346	105,312,450	-1.43
Dec-2014	105,312,450	7,621,833	-	7,621,833	4,031,767	116,966,050	3.57
Mar-2015	116,966,050	-	1,512,343	-1,512,343	2,856,300	118,310,007	2.46
Jun-2015	118,310,007	-	1,332,712	-1,332,712	-581,700	116,395,595	-0.50
Sep-2015	116,395,595	-	1,099,361	-1,099,361	-5,449,028	109,847,206	-4.72
Dec-2015	109,847,206	8,251,060	2,762,661	5,488,399	5,689,897	121,025,502	2.58
Mar-2016	121,025,502	7,589,316	8,599,372	-1,010,056	-1,803,617	118,211,829	1.44
Jun-2016	118,211,829	1,424,212	2,565,534	-1,141,322	2,049,990	119,120,498	1.74
Sep-2016	119,120,498	3,743,647	4,750,720	-1,007,073	4,157,724	122,271,148	3.49
Dec-2016	122,271,148	20,010,869	12,411,919	7,598,951	3,172,123	133,042,222	2.44
Mar-2017	133,042,222	3,994,591	6,390,328	-2,395,737	4,004,829	134,651,313	3.04
Jun-2017	134,651,313	12,268,921	15,569,852	-3,300,931	3,602,838	134,953,220	2.71
Sep-2017	134,953,220	15,754,188	16,964,685	-1,210,497	4,039,130	137,781,854	3.00
Dec-2017	137,781,854	34,723,496	26,093,106	8,630,390	4,656,414	151,068,658	3.17

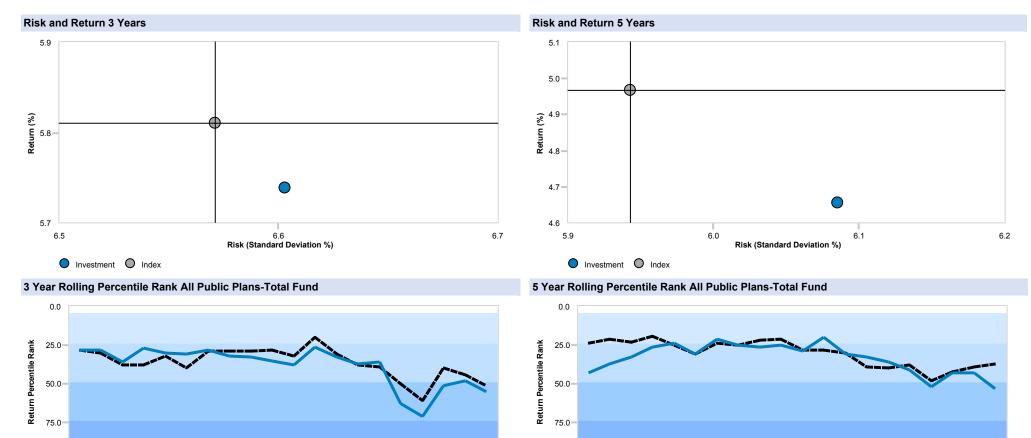


Schedule of Investable Assets Total Fund Since Inception Ending December 31, 2018

Periods Ending	Beginning Market Value	Contributions \$	Withdrawals \$	Net Cash Flow	Gain/Loss \$	Ending Market Value	%Return
Mar-2018	* 151,068,658	36,560,097	39,599,539	-3,039,442	-1,310,015	\$ 146,719,201	-0.90
Jun-2018	146,719,201	2,531,546	4,858,682	-2,327,136	3,494,498	147,886,563	2.40
Sep-2018	147,886,563	21,023,715	23,353,030	-2,329,315	5,161,780	150,719,028	3.51
Dec-2018	150,719,028	21,868,800	12,579,706	9,289,095	-13,690,229	146,317,894	-8.54
	15,998,300	256,832,840	209,200,041	47,632,799	82,686,795	146,317,894	5.88



						Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.74	6.60	0.73	100.94	10	102.99	2	Investment	4.66	6.09	0.67	98.82	15	106.50	5
Index	5.81	6.57	0.74	100.00	10	100.00	2	Index	4.97	5.94	0.74	100.00	15	100.00	5



100.0	3/14	9/14	3/15	9/15	3/16	9/16	3/17	9/17	3/18	12/18	100.0	3/14	9/14	3/15	9/15	3/16	9/16	3/17	9/17	3/18	12/18
		Total Period		5-25 Count		25-Median Count		Median-75 Count		75-95 Count			Total Period	I	5-25 Count		25-Median Count		Median-75 Count		75-95 Count
Investm	nent	20		0 (0%)		16 (80%))	4 (20%)		0 (0%)	Invest	ment	20		5 (25%)	13 (65%)		2 (10%)		0 (0%)
_ Index		20		1 (5%)		17 (85%))	2 (10%)		0 (0%)	Index		20		9 (45%)	11 (55%)		0 (0%)		0 (0%)

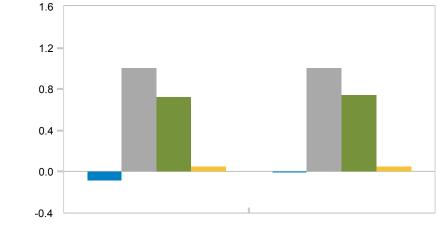


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Portfolio Comparison Total Fund

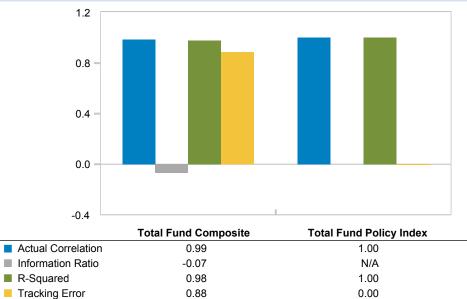


	Total Fund Composite	Total Fund Policy Index
Alpha	-0.08	0.00
Beta	1.00	1.00
Sharpe Ratio	0.73	0.75
Treynor Ratio	0.05	0.05

Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

0.88

Risk / Reward Historical Statistics 3 Years Ending December 31, 2018



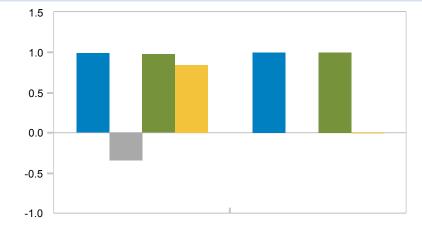
0.00

Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



	Total Fund Composite	Total Fund Policy Index
Alpha	-0.36	0.00
Beta	1.01	1.00
Sharpe Ratio	0.67	0.74
Treynor Ratio	0.04	0.04

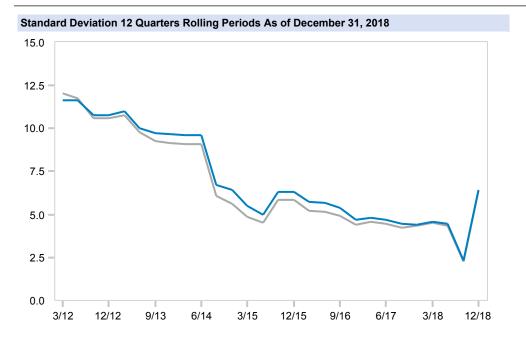
Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



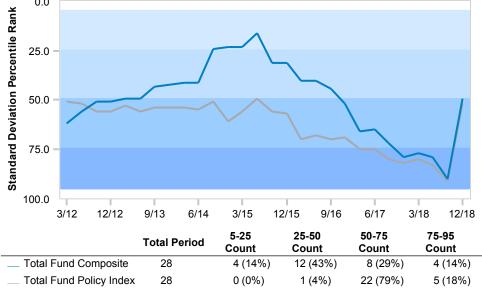
	Total Fund Composite	Total Fund Policy Index	
Actual Correlation	0.99	1.00	_
Information Ratio	-0.34	N/A	
R-Squared	0.98	1.00	
Tracking Error	0.85	0.00	

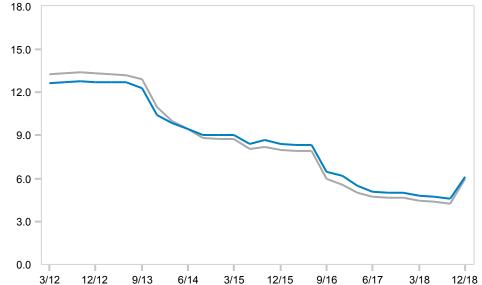


Benchmark: Total Fund Policy Index



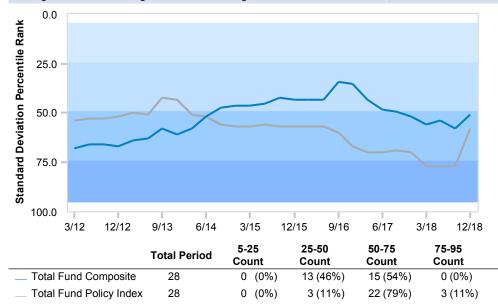
Rolling Percentile Ranking 12 Quarters Rolling Periods As of December 31, 2018



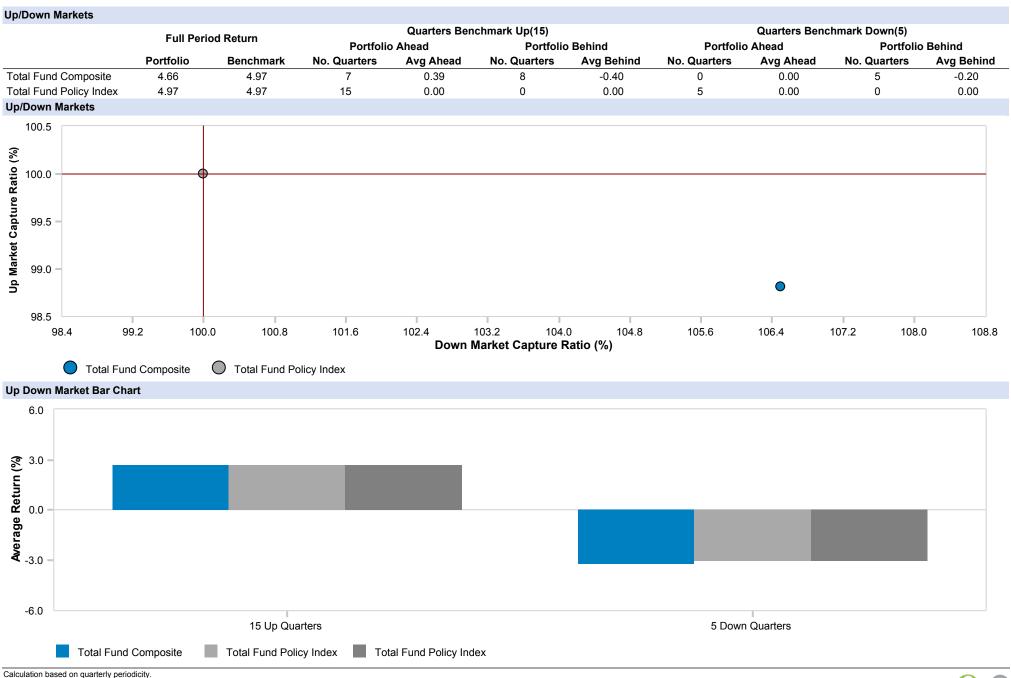


Standard Deviation 20 Quarters Rolling Periods As of December 31, 2018

Rolling Percentile Ranking 20 Quarters Rolling Periods As of December 31, 2018

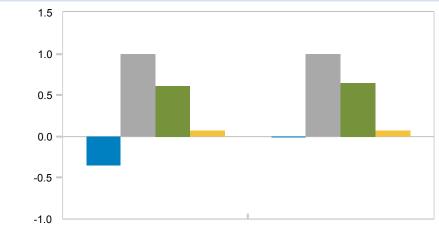


Peer: All Public Plans-Total Fund





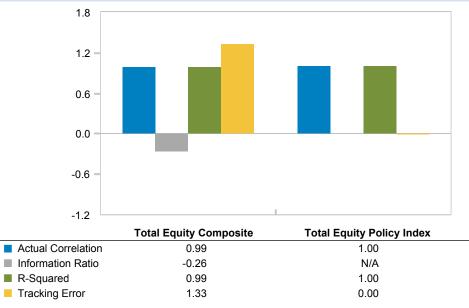
Portfolio Comparison Total Equity As of December 31, 2018



	Total Equity Composite	Total Equity Policy Index
Alpha	-0.35	0.00
Beta	1.00	1.00
Sharpe Ratio	0.61	0.65
Treynor Ratio	0.07	0.07

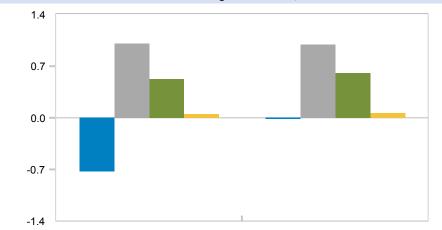
Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

Risk / Reward Historical Statistics 3 Years Ending December 31, 2018



Benchmark: Total Equity Policy Index

Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



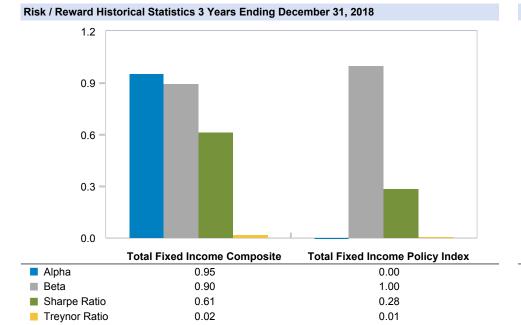
	Total Equity Composite	Total Equity Policy Index
Alpha	-0.73	0.00
Beta	1.01	1.00
Sharpe Ratio	0.53	0.60
Treynor Ratio	0.05	0.06

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018

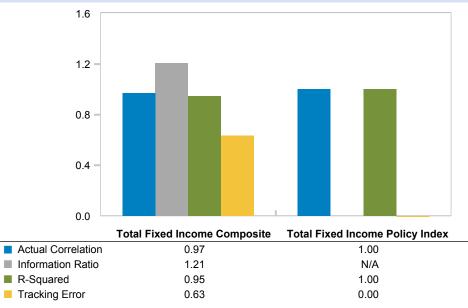


	Total Equity Composito		
Actual Correlation	0.99	1.00	
Information Ratio	-0.46	N/A	
R-Squared	0.98	1.00	
Tracking Error	1.39	0.00	

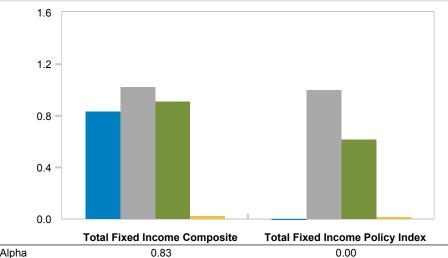




Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

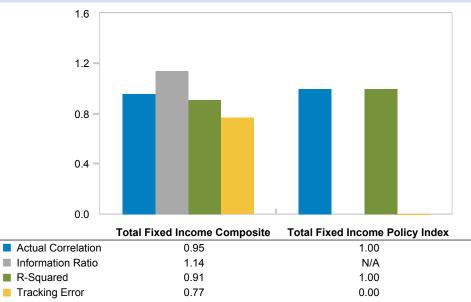


Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



	Total Fixed income Composite	Total Fixed income Policy index
Alpha	0.83	0.00
Beta	1.02	1.00
Sharpe Ratio	0.91	0.62
Treynor Ratio	0.02	0.02

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



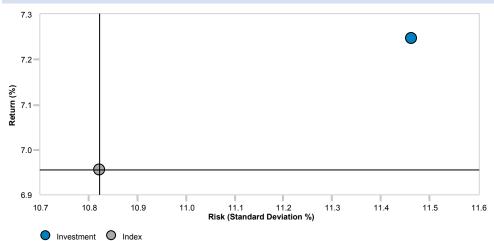
Benchmark: Total Fixed Income Policy Index

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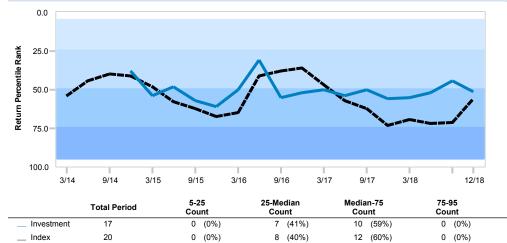


Historical Statistics 3 Years						Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.25	11.46	0.58	103.60	10	102.74	2	Investment	5.90	10.21	0.55	108.13	15	117.66	5
Index	6.95	10.82	0.58	100.00	10	100.00	2	Index	5.95	9.21	0.61	100.00	15	100.00	5

Risk and Return 3 Years

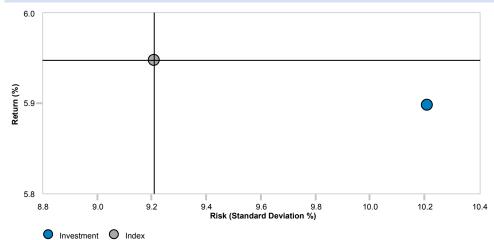


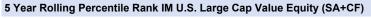




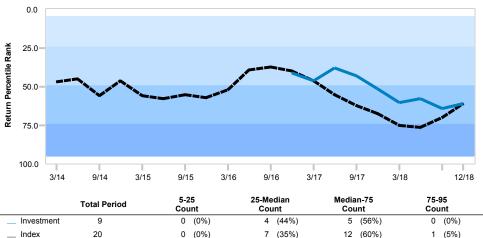
Risk and Return 5 Years

__ Index





0 (0%)

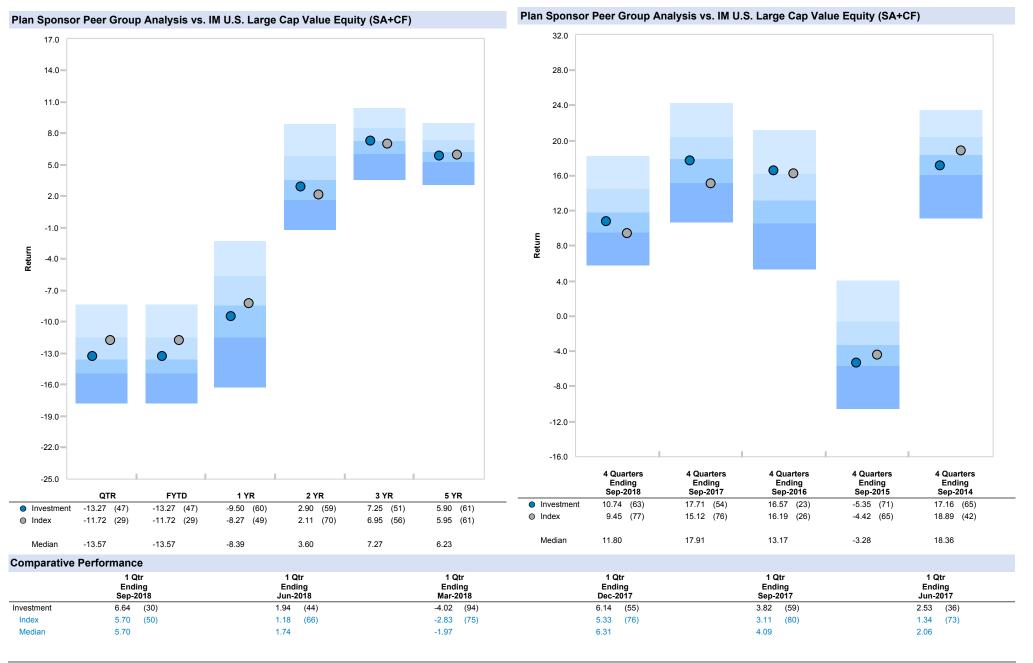


7 (35%)

12 (60%)



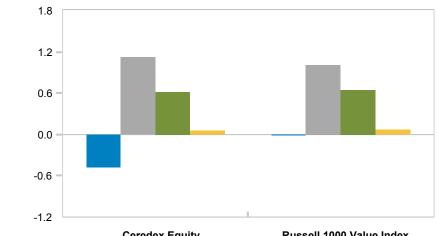
1 (5%)





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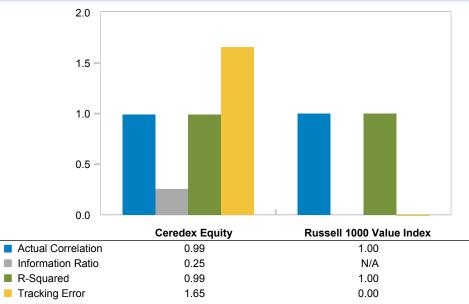
Portfolio Comparison Ceredex As of December 31, 2018



	Ceredex Equity	Russell 1000 Value Index
Alpha	-0.48	0.00
Beta	1.12	1.00
Sharpe Ratio	0.61	0.65
Treynor Ratio	0.06	0.06

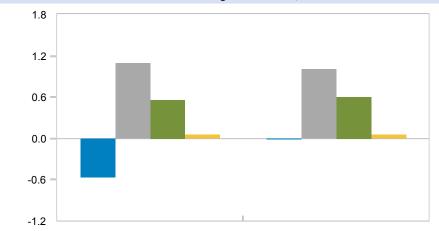
Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

Risk / Reward Historical Statistics 3 Years Ending December 31, 2018



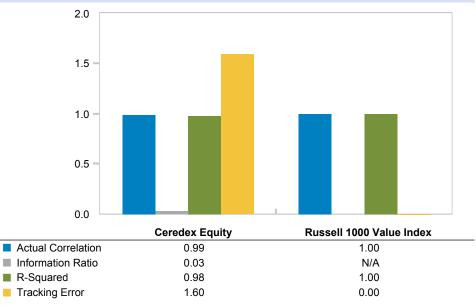
Benchmark: Russell 1000 Value Index

Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



	Ceredex Equity	Russell 1000 Value Index
Alpha	-0.57	0.00
Beta	1.10	1.00
Sharpe Ratio	0.55	0.61
Treynor Ratio	0.05	0.06

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



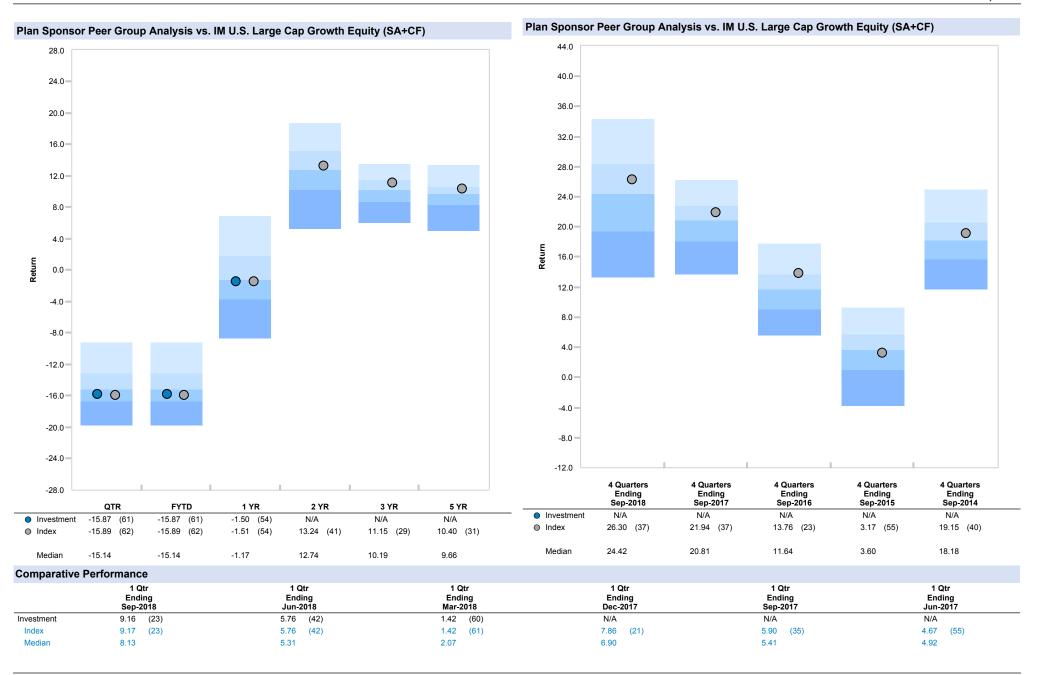


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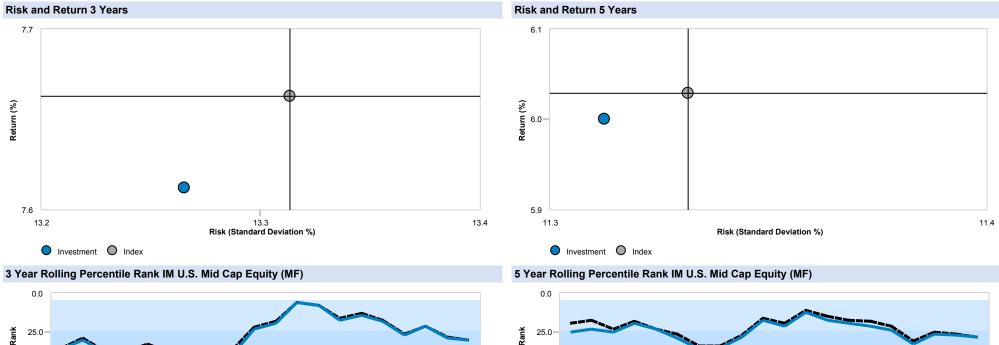


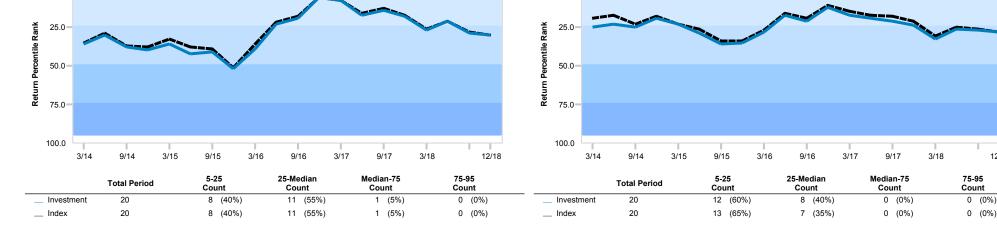






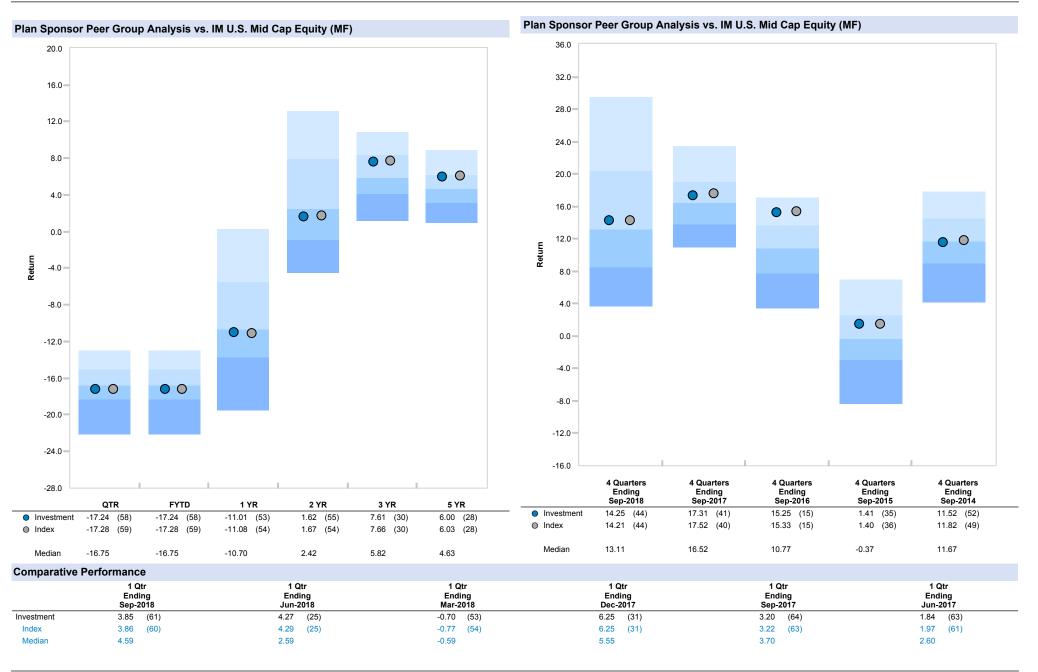
Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.61	13.27	0.55	99.86	10	100.20	2	Investment	6.00	11.31	0.52	99.61	15	99.66	5
Index	7.66	13.31	0.55	100.00	10	100.00	2	Index	6.03	11.33	0.52	100.00	15	100.00	5





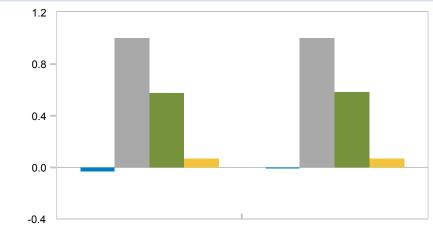


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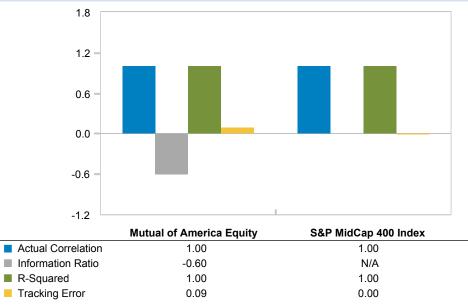
Portfolio Comparison Mutual of America As of December 31, 2018



	Mutual of America Equity	S&P MidCap 400 Index
Alpha	-0.03	0.00
Beta	1.00	1.00
Sharpe Ratio	0.58	0.58
Treynor Ratio	0.07	0.07

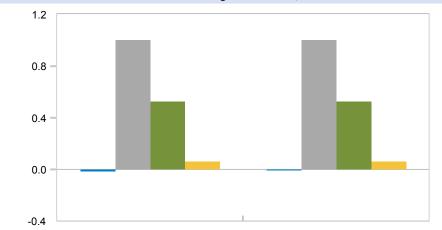
Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

Risk / Reward Historical Statistics 3 Years Ending December 31, 2018



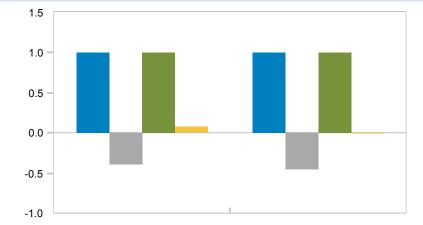
Benchmark: S&P MidCap 400 Index

Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



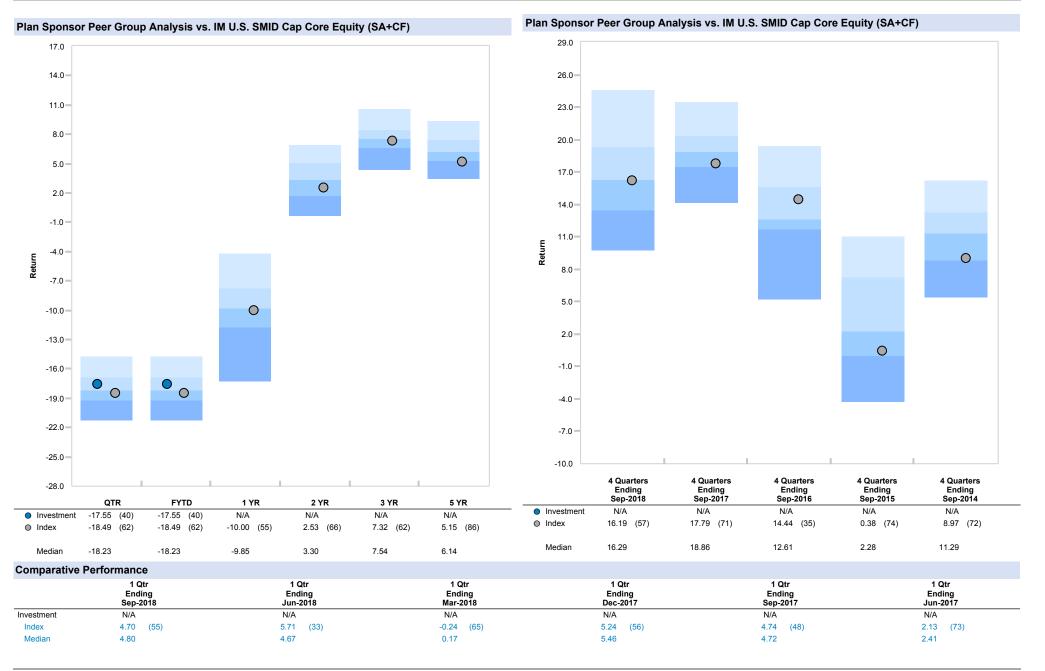
	Mutual of America Equity	S&P MidCap 400 Index
Alpha	-0.02	0.00
Beta	1.00	1.00
Sharpe Ratio	0.52	0.52
Treynor Ratio	0.06	0.06

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



	Mutual of America Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.40	-0.46
R-Squared	1.00	1.00
Tracking Error	0.07	0.00



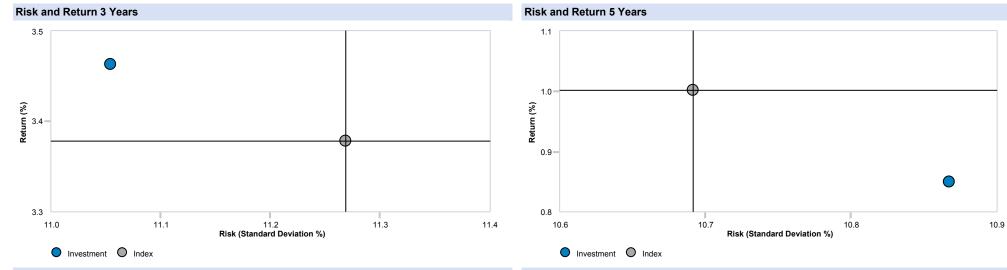




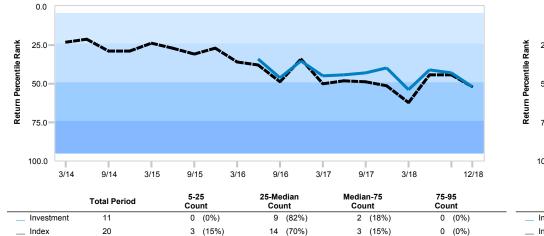




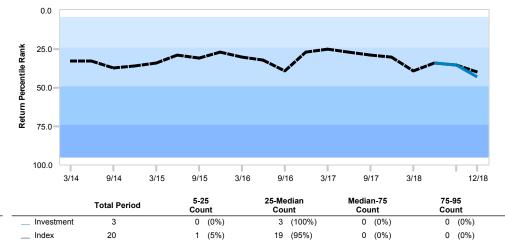
Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.46	11.05	0.27	95.07	6	93.24	6	Investment	0.85	10.87	0.08	99.60	11	101.20	9
Index	3.38	11.27	0.26	100.00	6	100.00	6	Index	1.00	10.69	0.09	100.00	11	100.00	9



3 Year Rolling Percentile Rank IM International Equity (MF)



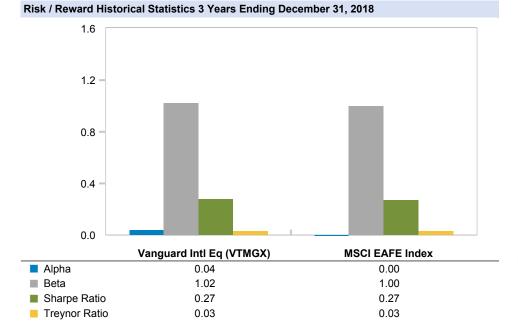
5 Year Rolling Percentile Rank IM International Equity (MF)



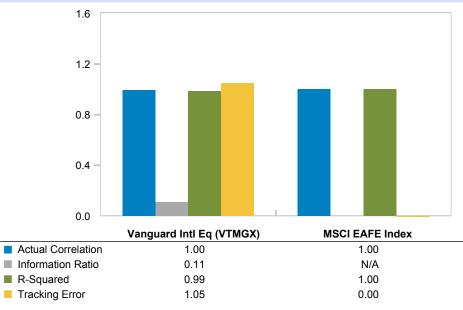








Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018



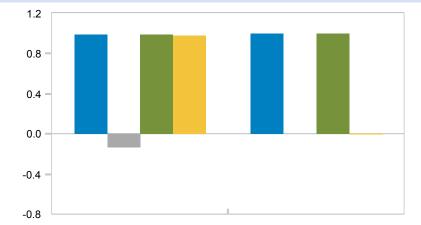
Benchmark: MSCI EAFE Index

Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	-0.15	0.00
Beta	1.01	1.00
Sharpe Ratio	0.08	0.09
Treynor Ratio	0.01	0.01

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



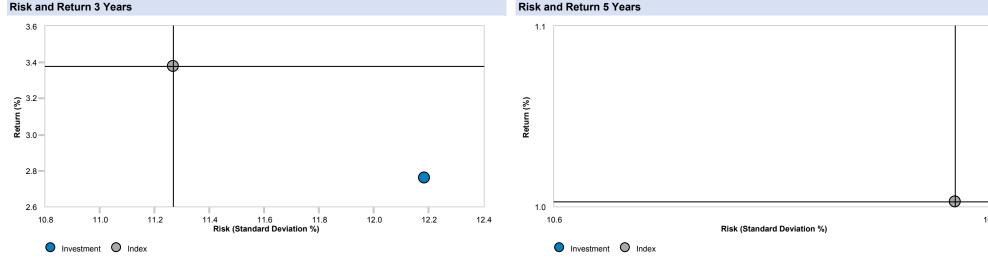
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Actual Correlation	1.00	1.00
Information Ratio	-0.13	N/A
R-Squared	0.99	1.00
Tracking Error	0.98	0.00

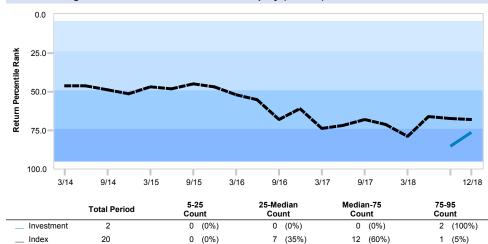


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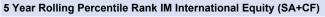
Historical Statistics	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.76	12.18	0.20	97.98	5	100.99	7	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	3.38	11.27	0.26	100.00	6	100.00	6	Index	1.00	10.69	0.09	100.00	11	100.00	9

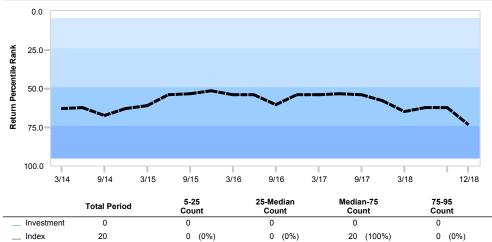




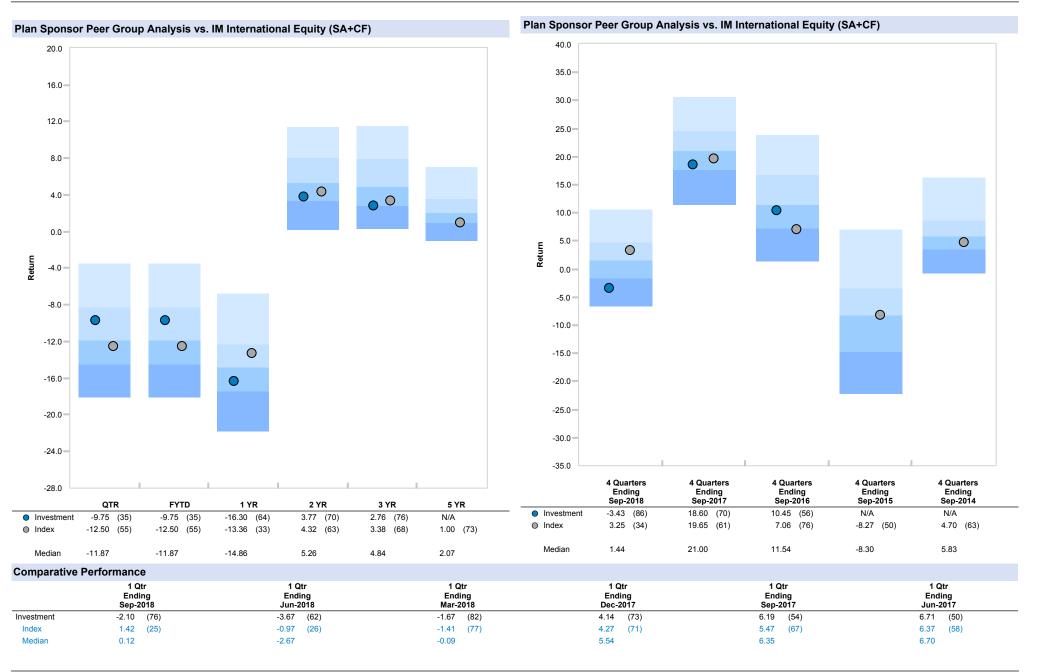
3 Year Rolling Percentile Rank IM International Equity (SA+CF)







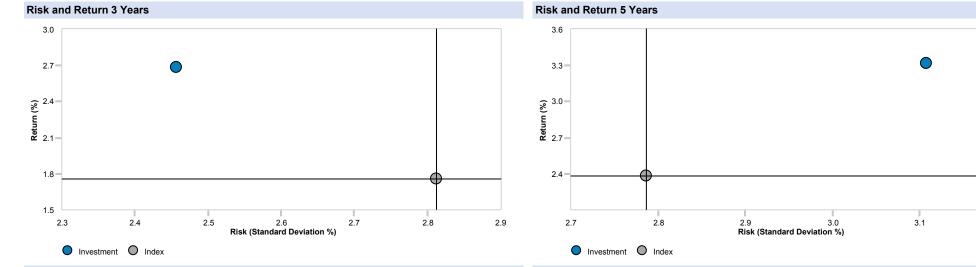


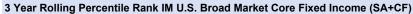


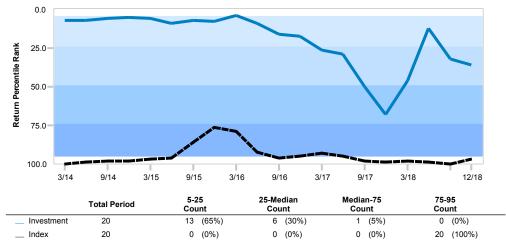


Strategy Review GHA A+ Fixed Income | BImbg. Barc. U.S. Aggregate: A+ As of December 31, 2018

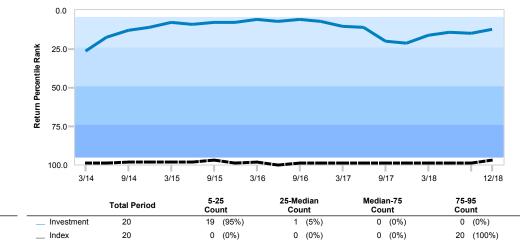
Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.69	2.46	0.69	96.38	9	62.14	3	Investment	3.32	3.11	0.86	123.73	15	95.87	5
Index	1.75	2.81	0.28	100.00	9	100.00	3	Index	2.38	2.79	0.63	100.00	15	100.00	5







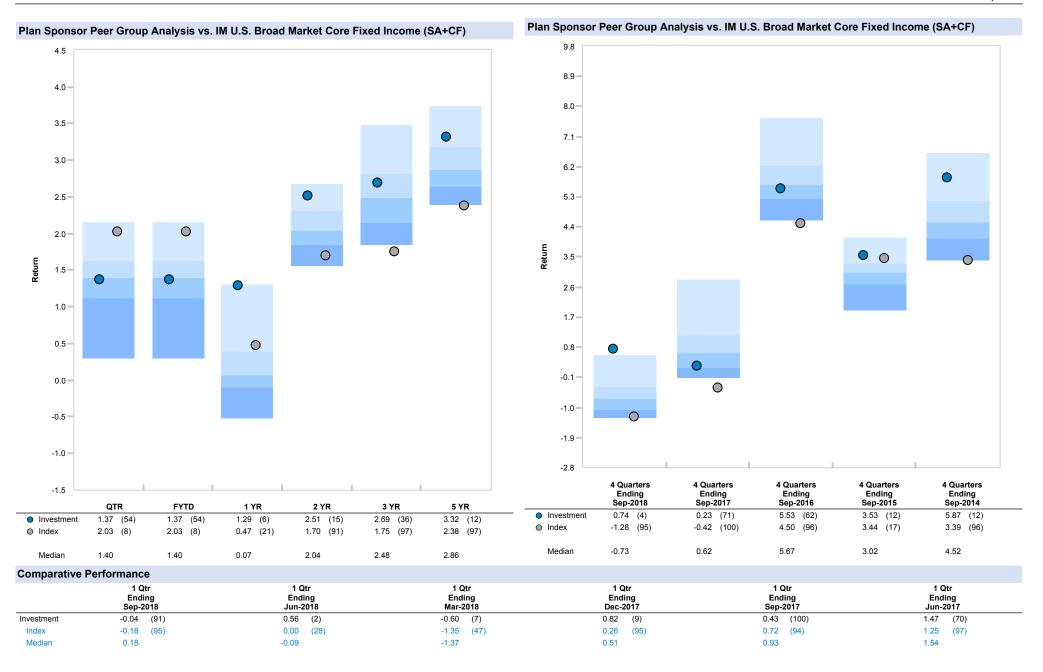
5 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



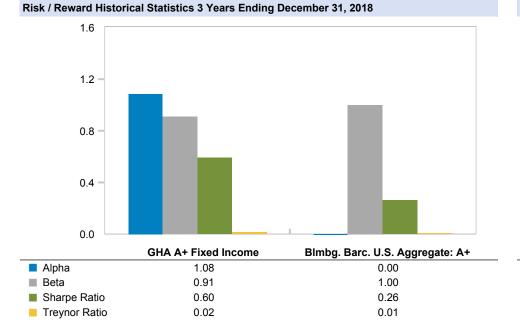


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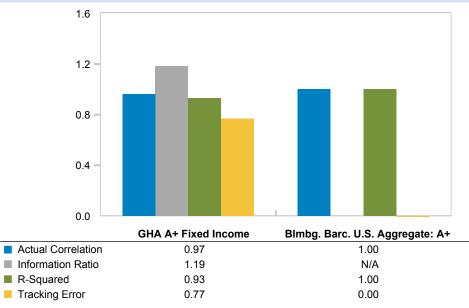
Strategy Review GHA A+ Fixed Income | BImbg. Barc. U.S. Aggregate: A+ As of December 31, 2018



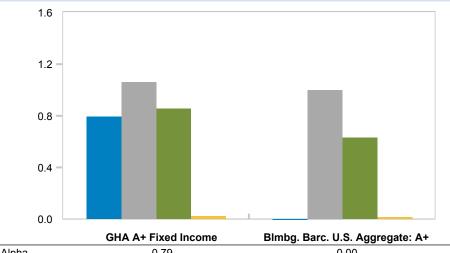




Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

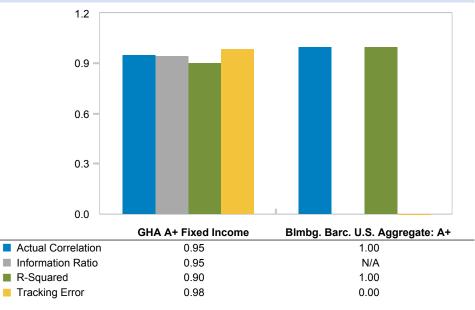


Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



	GHA A+ Fixed income	Bimbg. Barc. U.S. Aggregate: A+
Alpha	0.79	0.00
Beta	1.06	1.00
Sharpe Ratio	0.86	0.63
Treynor Ratio	0.03	0.02

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



88

Benchmark: Blmbg. Barc. U.S. Aggregate: A+

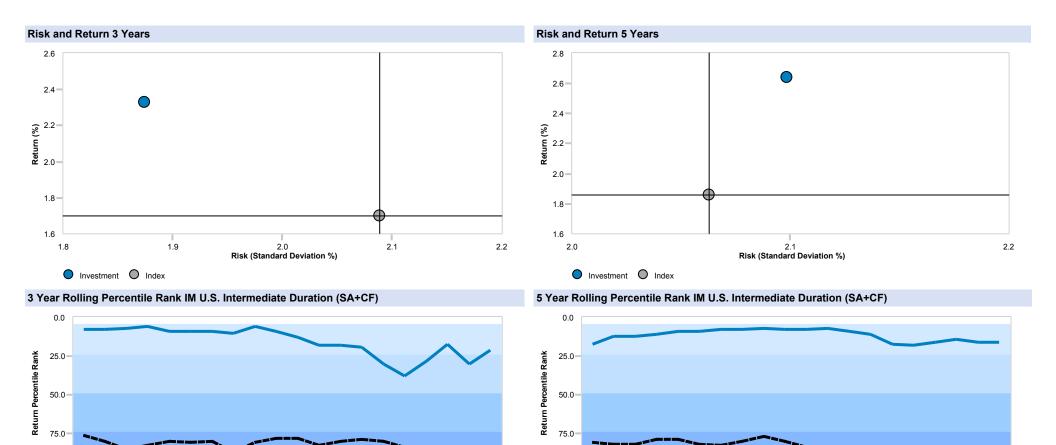
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Strategy Review GHA EXCL A+ Fixed Income | Bloomberg Barclays Intermediate US Govt/Credit Idx

As of December 31, 2018

Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.33	1.87	0.70	91.84	10	53.70	2	Investment	2.64	2.10	0.94	118.72	16	72.31	4
Index	1.70	2.09	0.34	100.00	9	100.00	3	Index	1.86	2.06	0.59	100.00	14	100.00	6



100.0

Investment

__ Index

3/14

9/14

Total Period

20

20

3/15

9/15

5-25

Count

20 (100%)

0 (0%)

3/16

9/16

25-Median

Count

0 (0%)

0 (0%)

12/18

75-95

Count

0 (0%)

20 (100%)

3/17

9/17

Median-75

Count

0 (0%)

0 (0%)

3/18

100.0

Investment

__ Index

3/14

9/14

Total Period

20

20

3/15

9/15

5-25

Count

16 (80%)

0 (0%)

3/16

9/16

25-Median

Count

4 (20%)

0 (0%)

9/17

Median-75

Count

0 (0%)

0 (0%)

3/17

3/18

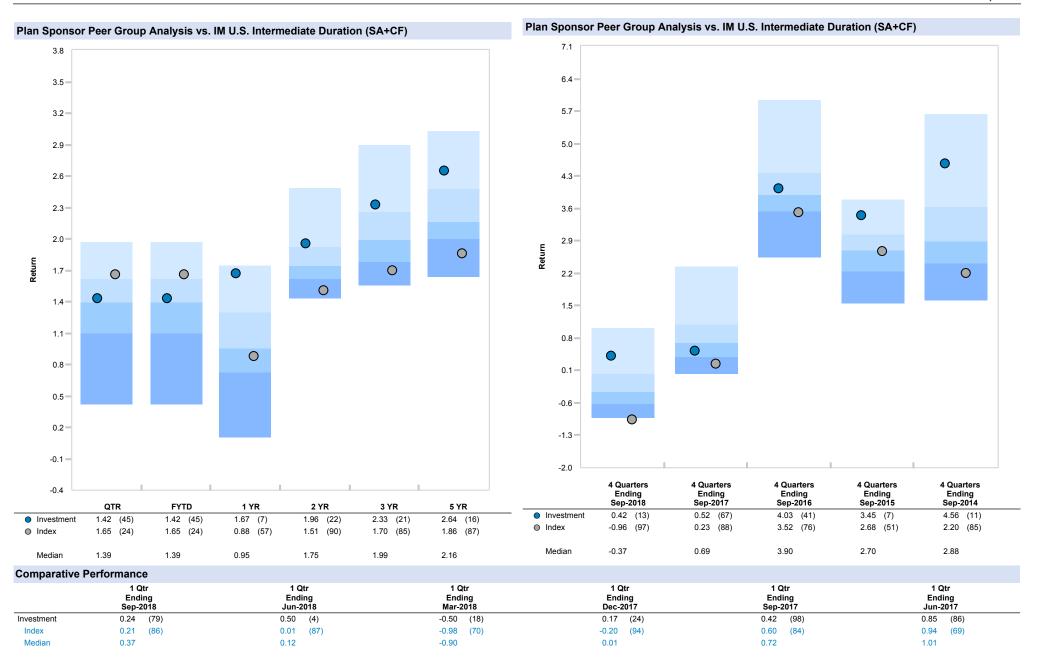
12/18

75-95

Count

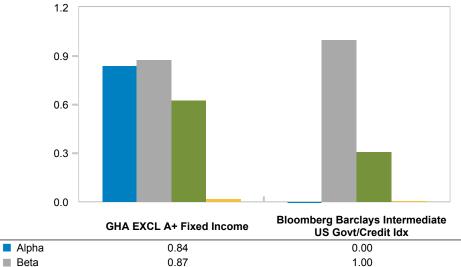
0 (0%)

20 (100%)





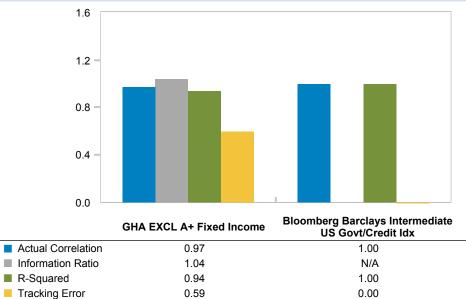
Portfolio Comparison GHA EXCL A+ Fixed Income As of December 31, 2018



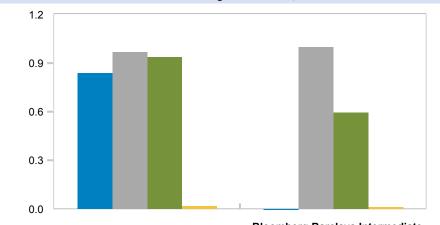
Beta	0.87	1.00
Sharpe Ratio	0.62	0.31
Treynor Ratio	0.02	0.01

Benchmark Relative Historical Statistics 3 Years Ending December 31, 2018

Risk / Reward Historical Statistics 3 Years Ending December 31, 2018

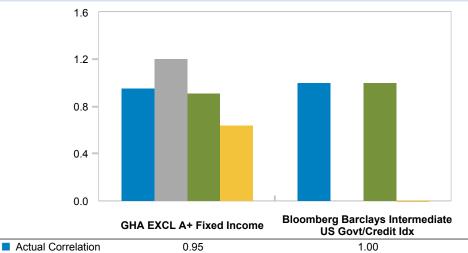


Risk / Reward Historical Statistics 5 Years Ending December 31, 2018



	GHA EXCL A+ Fixed Income	Bloomberg Barclays Intermediate US Govt/Credit Idx
Alpha	0.84	0.00
Beta	0.97	1.00
Sharpe Ratio	0.94	0.59
Treynor Ratio	0.02	0.01

Benchmark Relative Historical Statistics 5 Years Ending December 31, 2018



Benchmark: Bloomberg Barclays Intermediate US Govt/Credit Idx

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Strategy Review ASB Real Estate | NCREIF Fund Index-Open End Diversified Core (EW) As of December 31, 2018





Benchmark History Investment Policy Benchmarks As of December 31, 2018

Total Fund Historical Hybrid Composition Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1998	Weight (70)	Jul-2010	Weight (70)
S&P 500 Index	60.00	Russell 1000 Value Index	15.50
ICE BofAML Govt/ Corp Master	40.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	20.00
ICE BOIANIE GOVI/ COIP Master	40.00	S&P MidCap 400 Index	10.00
Jan-2000		Russell 2500 Index	10.00
S&P 500 Index	50.00	Russell 1000 Growth Index	15.50
Blmbg. Barc. U.S. Aggregate Index	40.00	MSCI EAFE Index	9.00
MSCI EAFE Index	10.00	Blmbg. Barc. U.S. Aggregate: A+	20.00
Apr-2004			
S&P 500 Index	50.00	Jul-2017	(-
Blmbg. Barc. U.S. Aggregate Index	40.00	Russell 1000 Value Index	15.50
Russell 2000 Value Index	40.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	16.00
Russell 2000 value Index	10.00	S&P MidCap 400 Index	10.00
Jan-2007		Russell 2500 Index	10.00
S&P 500 Index	50.00	Russell 1000 Growth Index	15.50
Bloomberg Barclays Intermediate US Govt/Credit Idx	24.00	MSCI EAFE Index	9.00
Russell 2000 Value Index	10.00	BImbg. Barc. U.S. Aggregate: A+	16.00
Barclays Aggregate A+	16.00	NCREIF Fund Index-Open End Diversified Core (EW)	8.00
Jan-2008			
S&P 500 Index	40.00		
Bloomberg Barclays Intermediate US Govt/Credit Idx	24.00		
S&P MidCap 400 Index	10.00		
Barclays Aggregate A+	16.00		
Russell 2000 Value Index	10.00		
Apr-2008			
Russell 1000 Value Index	20.00		
Bloomberg Barclays Intermediate US Govt/Credit Idx	25.00		
S&P MidCap 400 Index	10.00		
Barclays Aggregate A+	15.00		
Russell 2000 Value Index	10.00		
Russell 1000 Growth Index	20.00		
Apr-2009			
Russell 1000 Value Index	20.00		
Bloomberg Barclays Intermediate US Govt/Credit Idx	20.00		
S&P MidCap 400 Index	10.00		
Barclays Aggregate A+	20.00		
Russell 2000 Value Index	10.00		
Russell 1000 Growth Index	20.00		



Weight (%)

100.00

100.00

60.00 40.00

62.50 37.50

50.00 50.00

Total Equity Historical Hybrid Co	omposition	Total Fixed Income Historical Hybrid Composition
Allocation Mandate	Weight (%)	Allocation Mandate
Jan-1998		
S&P 500 Index	100.00	Jan-1998
		ICE BofAML Govt/ Corp Master
Jan-2000		1
S&P 500 Index	83.30	Jan-2000
MSCI EAFE Index	16.70	Blmbg. Barc. U.S. Aggregate Index
Apr-2004		Jan-2007
S&P 500 Index	83.30	Bloomberg Barclays Intermediate US Govt/Credit Id>
Russell 2000 Value Index	16.70	Blmbg. Barc. U.S. Corporate A+ Index
Jan-2008		Apr-2008
S&P 500 Index	66.60	Bloomberg Barclays Intermediate US Govt/Credit Id
Russell 2000 Value Index	16.70	Blmbg. Barc. U.S. Corporate A+ Index
S&P MidCap 400 Index	16.70	
·		Apr-2009
Apr-2008		Bloomberg Barclays Intermediate US Govt/Credit Id
Russell 1000 Growth Index	33.30	BImbg. Barc. U.S. Aggregate: A+
Russell 2000 Value Index	16.70	
S&P MidCap 400 Index	16.70	
Russell 1000 Value Index	33.30	
Jul-2010		
Russell 1000 Growth Index	25.83	
Russell 2500 Index	16.67	
S&P MidCap 400 Index	16.67	
Russell 1000 Value Index	25.83	
MSCI EAFE Index	15.00	



Sunrise Police Fee Analysis As of December 31, 2018

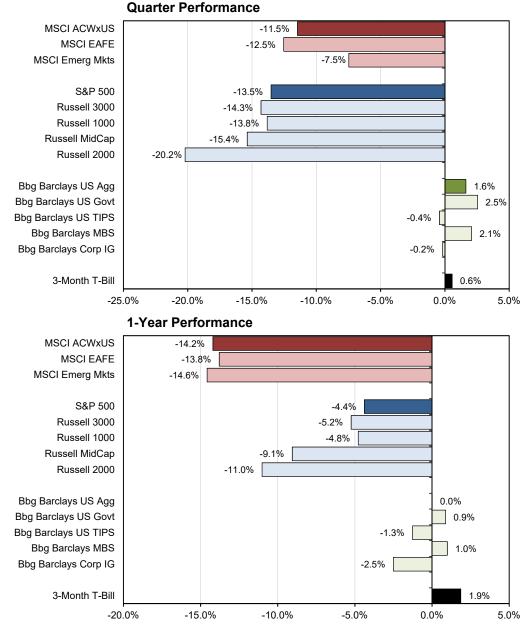
	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Ceredex Equity	0.59	21,652,762	127,437	0.75 % of First \$10 M 0.45 % of Next \$40 M 0.25 % Thereafter
Rhumbline R1000G	0.05	11,157,400	5,579	0.05 % of Assets
Polen Capital	0.60	11,999,126	71,995	0.60 % of Assets
Mutual of America Equity	0.07	13,560,331	9,492	0.07 % of Assets
Great Lakes SMID Cap	0.55	6,776,411	37,270	0.55 % of First \$50 M 0.45 % of Next \$50 M 0.35 % Thereafter
Vanguard R2000 (VRTIX)	0.08	6,705,366	5,364	0.08 % of Assets
JPM International Equity	0.75	5,182,413	38,868	0.75 % of Assets
Vanguard Intl Eq (VTMGX)	0.09	6,419,751	5,778	0.09 % of Assets
Total Equity Composite	0.36	83,453,560	301,784	
GHA EXCL A+ Fixed Income	0.25	25,482,414	63,706	0.25 % of Assets
GHA A+ Fixed Income	0.25	24,100,969	60,252	0.25 % of Assets
Total Fixed Income Composite	0.25	49,583,383	123,958	
Barings Real Estate	1.10	6,610,959	72,721	1.10 % of Assets
ASB Real Estate	1.23	5,432,403	66,824	1.25 % of First \$5 M 1.00 % of Next \$10 M 0.90 % of Next \$60 M 0.75 % Thereafter
Total Real Estate	1.16	12,043,362	139,545	
R&D Cash		1,237,589	-	
Total Fund Composite	0.39	146,317,894	565,287	



4th Quarter 2018 Market Environment



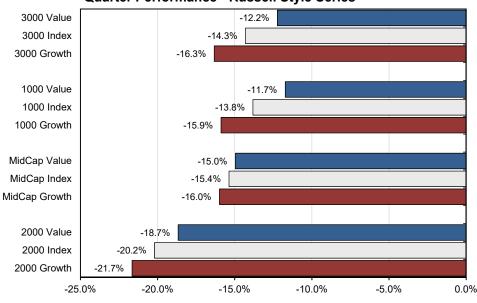
- Markets were volatile to end the 2018 calendar year. Both international and domestic equity markets had considerable losses during the 4th quarter while fixed income returns were muted, but outperformed relative to equities. Within equities, domestic stocks trailed international markets, reversing the 2018 trend of US market strength. Trade tensions between the US and China, midterm elections in US Congress, the effects of ongoing monetary policy tightening by the Federal Reserve (Fed), federal debt ceiling negotiations and the subsequent partial government shutdown outweighed generally positive corporate earnings and macroeconomic data reported during the quarter. The large cap S&P 500 Index returned -13.5% during the quarter while the small cap Russell 2000 Index fell by over 20% for the period. The drop in equity prices over the last three months was enough to take the returns for major US equity indices into negative territory for the 2018 calendar year. Returns over the 1-year period were -4.4% and -11.0% for the S&P 500 and Russell 2000 respectively.
- Similar to US equities, international equity index returns finished the quarter in negative territory with the MSCI ACWI ex US Index returning -11.5%. International markets faced headwinds from softening global macroeconomic data, tightening global monetary policy, uncertainty around Brexit negotiations, turmoil surrounding global trade relations, falling commodity prices and continued US Dollar (USD) strength. The developed market MSCI EAFE Index fell -12.5% during the 4th quarter, ending the year down -13.8%. Emerging markets performed well by comparison, only losing -7.5% during the quarter. Despite the 4th quarter outperformance, returns for emerging market equities trailed developed markets over the 1-year period with the MSCI EAFE Index.
- Fixed income securities outperformed equities through both the 4th quarter and calendar year 2018 with the broad market Bloomberg Barclays Aggregate Index returning 1.6% and 0.0% respectively. Interest rates on the US Treasury Yield Curve continued their 2018 flattening trend as short-term rates increased to near-term highs while long- term rates fell during the quarter. Some of the increase in short-term rates can be attributed to the late December Fed interest rate hike. This marked the fourth Fed interest rate increase of 2018. This movement in rates did lead to some short-term rates being higher than those of longer dated maturities. More conservative fixed income sectors such as Treasuries and mortgage backed securities outperformed during the quarter and for the year as investors moved toward the relative safety these securities provide while widening credit spreads acted as a headwind to corporate issues.



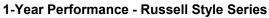
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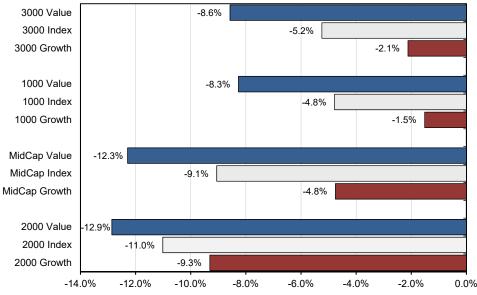
Source: Investment Metrics

- US equity index returns were strongly negative across the style and capitalization spectrum during the 4th quarter of 2018. Despite these negative results, there was positive data in GDP, unemployment, wage growth, retail sales, and corporate earnings during the period. These positive economic factors were offset by softening data in housing, consumer confidence and manufacturing, tightening monetary policy, negative guidance for future corporate earnings and signs of slowing global growth which all contributed to the heavy selling in equities. Investors also considered the effects of ongoing trade negotiations, especially between the US and China, and the results of the US congressional midterm elections which likely reduced the chances of any major policy changes or new fiscal stimulus measures. The effects of partisan politics was particularly evident at the end of the quarter as budget negotiations between Democrats and Republicans collapsed over disagreement around the inclusion of funds for a border wall with Mexico, leading to a partial government shutdown to end the year.
- During the quarter, large cap stocks outperformed mid and small cap equities across growth, value and core indices. The large cap Russell 1000 Index fell 13.8% during the 4th quarter versus a -20.2% drop for the Russell 2000 Index. Part of the reason for weakness in small cap names is the steady increase in interest rates that occurred over 2018 as small cap companies typically maintain a higher percentage of debt than their large cap peers. Small cap names are also typically more volatile than larger companies and they have historically underperformed during market downturns. Similar to the most recent quarter, large cap stocks outperformed relative to small caps through calendar year 2018. The Russell 1000 returned -4.8% for the 1-year periods compared to a -11.0% return for the Russell 2000.
- Value indices outperformed growth indices across the market cap spectrum during the 4th quarter, reversing a year-to-date trend of growth stock outperformance. The large cap Russell 1000 Value Index was the best performing style index for the period, returning -11.7% for the quarter, while the Russell 2000 Growth Index was the worst performer, returning -21.7%. Value benchmarks tend to outperform in down markets as they benefit from their relative safety and higher dividend yields. Despite the short-term underperformance, growth benchmarks continue to outperform over the 1-year period, however, many of the sector exposures that drove growth stock outperformance during the first three quarters of the year, such as technology and consumer discretionary, were relative detractors during the 4th quarter.



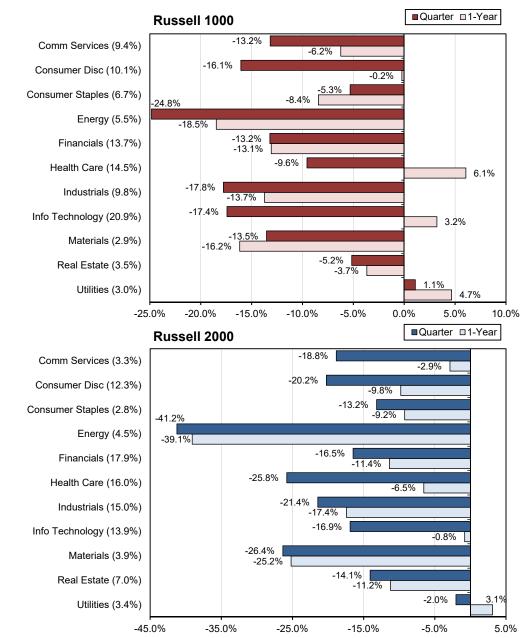
Quarter Performance - Russell Style Series







- Both S&P Dow Jones Indices and MSCI made changes to the Global Industry Classification Standard (GICS) sector configurations of their indices, creating a new GICS sector classification called Communication Services which replaced the Telecommunications sector on September 28, 2018. The Communication Services sector is comprised of companies in the Telecommunications sector, as well as certain companies formerly classified as Consumer Discretionary and Information Technology. As a result, the sector, went from a weighting of about 2% of the Russell 1000 Index to almost 10% post reclassification. Notable names now classified under Communication Services include Netflix, Alphabet, Facebook and Disney. This is just the second change to the GICS classifications since 1999.
- Sector performance was broadly negative across large cap sectors for the 4th quarter. All sectors within the Russell 1000 Index with the exception of the utilities sector posted negative returns for the period with seven sectors outpacing the return on the index. Cyclical sectors such as energy, industrials and technology were the worst performers through the quarter returning -24.8%, -17.8% and -17.4% respectively. Energy companies were hurt by a steep decline in oil prices during the quarter while technology and industrial companies fell on negative guidance for future earnings. More defensive, higher dividend paying sectors such as utilities, REITs and consumer staples were the strongest performing sectors with returns of 1.1%, -5.2% and -5.3% respectively. Only three sectors (health care, utilities, technology) posted positive results over the 1-year period with the remaining sectors losing ground during the calendar year.
- Quarterly results for small cap sectors were generally lower relative to their large capitalization counterparts. All eleven sectors had negative returns during the period with six of eleven economic sectors outpacing the Russell 2000 Index return for the quarter. Energy, materials and healthcare posted the worst returns for the period returning -41.2%, -26.4% and -25.8% respectively. Similar to large caps, defensive sectors performed well with utilities, consumer staples and real estate detracting the least returning -2.0%, -13.2% and -14.1% respectively. Over the trailing 1-year period, only utilities posted a gain returning 3.1%. Energy stocks were the worst performers in 2018, falling a considerable -41.2%.
- Using S&P 500 sector valuations as a proxy for the market, forward P/E ratios for three of the eleven GICS sectors were higher than their long-term averages at quarter-end. Using these historical P/E measures, the utilities, consumer discretionary and real estate sectors appear the most extended. In contrast the financials, technology and energy sectors were trading at a discount to their long-term average P/E ratios.



As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Page 63 Services sector.

The Market Environment Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000 ber 31, 2018

-	 	 	As of Decembe

Top 10 Weighted Stocks					
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	
Microsoft Corp	3.27%	-11.2%	20.3%	Information Technology	
Apple Inc	3.24%	-29.9%	-5.4%	Information Technology	
Amazon.com Inc	2.59%	-25.0%	28.4%	Consumer Discretionary	
Berkshire Hathaway Inc B	1.68%	-4.6%	3.0%	Financials	
Johnson & Johnson	1.47%	-6.0%	-5.1%	Health Care	
JPMorgan Chase & Co	1.39%	-12.9%	-6.6%	Financials	
Alphabet Inc Class C	1.34%	-13.2%	-1.0%	Communication Services	
Alphabet Inc A	1.32%	-13.4%	-0.8%	Communication Services	
Facebook Inc A	1.32%	-20.3%	-25.7%	Communication Services	
Exxon Mobil Corp	1.23%	-19.0%	-15.1%	Energy	

Top 10 Performing Stocks (by Quarter)						
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector		
Tesaro Inc	0.01%	90.3%	-10.4%	Health Care		
Red Hat Inc	0.13%	28.9%	46.2%	Information Technology		
Virtu Financial Inc A	0.00%	27.1%	45.9%	Financials		
Tesla Inc	0.19%	25.7%	6.9%	Consumer Discretionary		
SCANA Corp	0.03%	23.2%	23.1%	Utilities		
Tribune Media Co A	0.02%	18.9%	9.7%	Communication Services		
MarketAxess Holdings Inc	0.03%	18.6%	5.6%	Financials		
ARRIS International PLC	0.02%	17.6%	19.0%	Information Technology		
United States Cellular Corp	0.00%	16.1%	38.1%	Communication Services		
Newmont Mining Corp	0.08%	15.2%	-6.2%	Materials		

Top 10 Weighted Stocks					
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector	
Integrated Device Technology Inc	0.35%	3.0%	62.9%	Information Technology	
Etsy Inc	0.32%	-7.4%	132.6%	Consumer Discretionary	
Five Below Inc	0.31%	-21.3%	54.3%	Consumer Discretionary	
Haemonetics Corp	0.29%	-12.7%	72.3%	Health Care	
Ciena Corp	0.27%	8.5%	62.0%	Information Technology	
Planet Fitness Inc A	0.26%	-0.8%	54.8%	Consumer Discretionary	
Idacorp Inc	0.26%	-5.6%	4.6%	Utilities	
HubSpot Inc	0.26%	-16.7%	42.2%	Information Technology	
LivaNova PLC	0.25%	-26.2%	14.5%	Health Care	
Cree Inc	0.24%	13.0%	15.2%	Information Technology	

Top 10 Performing Stocks (by Quarter)						
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector		
Electro Scientific Industries Inc	0.05%	71.7%	39.8%	Information Technology		
Fluent Inc	0.01%	67.4%	3.4%	Communication Services		
Mitek Systems Inc	0.02%	53.3%	20.8%	Information Technology		
Arsanis Inc	0.00%	43.2%	-81.8%	Health Care		
Inovalon Holdings Inc	0.05%	41.1%	-5.5%	Health Care		
K12 Inc	0.05%	40.1%	55.9%	Consumer Discretionary		
Investment Technology Group Inc	0.05%	39.9%	59.0%	Financials		
Eidos Therapeutics Inc	0.01%	37.9%	N/A	Health Care		
Belmond Ltd Class A	0.13%	37.2%	104.3%	Consumer Discretionary		
Pacific Biosciences of California Inc	0.06%	36.8%	180.3%	Health Care		

Bottom 10 Performing Stocks (by Quarter)						
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	Rus	
Weatherford International PLC	0.00%	-79.4%	-86.6%	Energy	Syne	
Nabors Industries Ltd	0.00%	-66.8%	-69.3%	Energy	Sand	
Extraction Oil & Gas Inc	0.00%	-62.0%	-70.0%	Energy	Sien	
Adient PLC	0.01%	-61.4%	-80.4%	Consumer Discretionary	Clou	
Whiting Petroleum Corp	0.01%	-57.2%	-14.3%	Energy	Sele	
Kosmos Energy Ltd	0.00%	-56.5%	-40.6%	Energy	Clea	
Chesapeake Energy Corp	0.01%	-53.2%	-47.0%	Energy	Key	
Conduent Inc	0.01%	-52.8%	-34.2%	Information Technology	AAC	
NVIDIA Corp	0.33%	-52.4%	-30.8%	Information Technology	PHI	
SM Energy Co	0.01%	-50.8%	-29.6%	Energy	Brist	

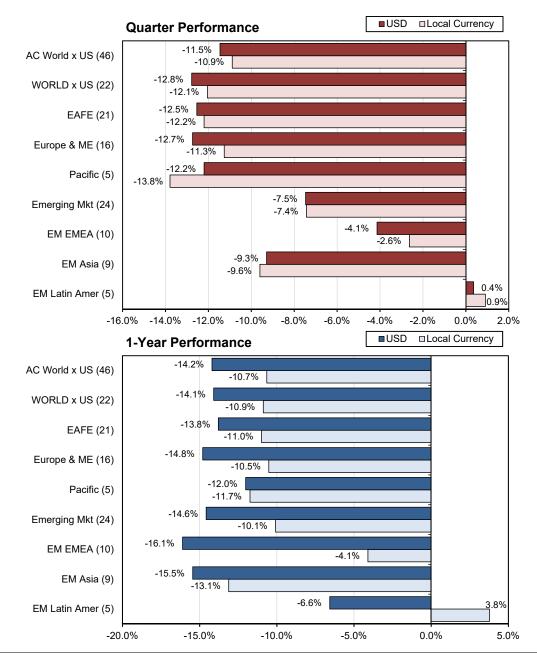
Bottom 10 Performing Stocks (by Quarter)						
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector		
Synergy Pharmaceuticals Inc	0.00%	-93.3%	-94.9%	Health Care		
Sanchez Energy Corp	0.00%	-88.3%	-94.9%	Energy		
Sienna Biopharmaceuticals Inc	0.00%	-84.3%	-87.2%	Health Care		
Cloud Peak Energy Inc	0.00%	-84.1%	-91.8%	Energy		
Selecta Biosciences Inc	0.00%	-82.9%	-72.9%	Health Care		
Clearside Biomedical Inc	0.00%	-82.6%	-84.7%	Health Care		
Key Energy Services Inc	0.00%	-81.9%	-82.4%	Energy		
AAC Holdings Inc	0.00%	-81.7%	-84.4%	Health Care		
PHI Inc Non-Voting Shares	0.00%	-80.2%	-84.0%	Energy		
Bristow Group Inc	0.00%	-80.0%	-82.0%	Energy		



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- Broad international equity returns were negative for the quarter in both local currency and USD terms. Geopolitical concerns, weakening economic data and the tightening of global monetary policy drove most of the negative performance. The USD also continued to strengthen against most currencies for the period which provided a headwind for USD based investors. The MSCI ACWI ex US Index fell -10.9% in local currency terms and -11.5% in USD terms during the 4th quarter. Returns for international indices were also broadly negative over the 1-year period in both local currency and USD terms with the MSCI ACWI ex US returning -10.7% and -14.2% respectively.
- Fourth guarter results for developed market international indices were negative in both local currency and USD terms with the MSCI EAFE Index returning -12.2% and -12.5% respectively. Returns were dampened for US investors as the USD continued to appreciate against most currencies, pushing returns lower. Global economic reporting during the guarter fueled concerns that global growth was beginning to slow. Japanese economic data faced headwinds from several natural disasters and data out of Europe was generally disappointing. Investors also weighed the effects of several significant political events in Europe including riots in France, ongoing budget negotiations between Italy and the EU and uncertainty around Brexit. Concerns over a "no deal" Brexit grew during the guarter as the draft withdrawal agreement presented by UK Prime Minister Theresa May was poorly received leading to a wave of cabinet resignations, a delay in the parliamentary vote and a "no confidence" vote which she ultimately won. The MSCI EAFE Index returned -11.0% and -13.8% for the last twelve months in local currency and USD terms respectively.
- Emerging markets outperformed relative to developed markets for the 4th guarter, but still declined in both local currency and USD terms with the MSCI Emerging Markets Index returning -7.4% and -7.5% respectively. Returns in emerging markets were hurt by the continued uncertainty surrounding trade relations between the US and China as both countries agreed to a 90-day hold on any new tariffs to allow for continued negotiations. Chinese economic data also appeared to be slowing during the quarter prompting the announcement of additional monetary and fiscal stimulus. The election of President Andres Manuel Lopez Obrador hurt returns in Mexico as investors feared the potential ramifications of his nationalist campaign promises. In contrast, Brazil was one of the few bright spots during the guarter as market participants looked favorably on the election of President Jair Bolsonaro in anticipation of market friendly economic reforms, including reforms associated with the countries bloated state pension system which has weighed heavily on the country's debt load. One year returns for the MSCI Emerging Market Index were -10.1% in local currency terms and -14.6% in USD terms.

The Market Environment International and Regional Market Index Performance (Country Count) As December 31, 2018





	The Market Environment
US Dollar International Index A	ttribution & Country Detail
	As of December 31, 2018

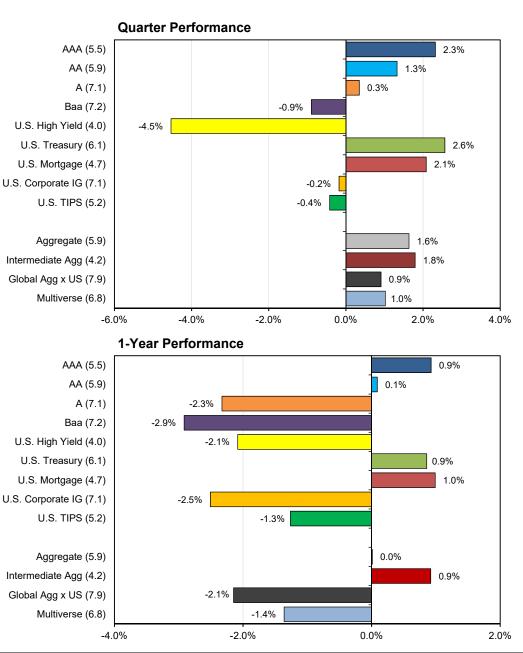
MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.6%	-7.7%	-12.1%
Consumer Discretionary	11.2%	-14.2%	-16.1%
Consumer Staples	11.6%	-8.4%	-10.8%
Energy	5.9%	-17.5%	-7.2%
Financials	19.5%	19.5% -13.7%	
Health Care	11.2%	11.2% -10.3%	
Industrials	14.3%	-14.6%	-15.7%
Information Technology	6.0%	-16.7%	-15.6%
Materials	7.4%	-15.2%	-17.5%
Real Estate	3.7%	-5.4%	-9.9%
Utilities	3.8%	-0.1%	1.1%
Total	100.0%	-12.5%	-13.8%
MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	7.6%	-5.5%	-11.9%
Consumer Discretionary	10.6%	-14.1%	-20.2%
Consumer Staples	9.9%	-7.4%	-11.2%
Energy	7.3%	-16.3%	-8.1%
Financials	22.2%	-10.7%	-16.8%
Health Care	8.4%	-11.2%	-6.2%
Industrials	11.7%	-13.7%	-15.1%
Information Technology	8.0%	-14.6%	-17.6%
Materials	7.7%	-13.4% -15.9%	
Real Estate	3.4%	-3.8% -11.6%	
Utilities	3.4%	0.5% -0.9%	
Total	100.0%	-11.5%	-14.2%
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return	
Communication Services	14.1%	-3.7%	-14.9%	
Consumer Discretionary	10.4%	-13.5%	-32.5%	
Consumer Staples	6.7% -4.6%		-13.7%	
Energy	8.0% -10.6%		4.7%	
Financials	24.8%	-0.9%	-8.7%	
Health Care	2.8% -16.2%		-20.9%	
Industrials	5.5%	5.5% -3.8%		
Information Technology	14.2%	-12.7%	-19.3%	
Materials	7.7%	-10.8%	-11.6%	
Real Estate	state 3.0%		-17.2%	
Utilities	2.7%	2.7% 3.6% -3.8%		
Total	100.0%	-7.5%	-14.6%	

	MSCI-EAFE	MSCI-ACWIxUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	24.6%	16.6%	-14.2%	-12.9%
Jnited Kingdom	16.9%	11.4%	-11.8%	-14.2%
France	11.1%	7.5%	-15.1%	-12.8%
Germany	8.8%	6.0%	-15.5%	-22.2%
Switzerland	8.7%	5.8%	-8.9%	-9.1%
Australia	6.9%	4.7%	-10.0%	-12.0%
long Kong	3.9%	2.6%	-4.5%	-7.8%
letherlands	3.4%	2.3%	-11.0%	-13.1%
Spain	3.1%	2.1%	-8.7%	-16.2%
Sweden	2.7%	1.8%	-14.2%	-13.7%
taly	2.3%	1.5%	-11.8%	-17.8%
Denmark	1.8%	1.2%	-9.8%	-15.4%
Bingapore	1.4%	0.9%	-6.7%	-9.4%
Finland	1.0%	0.7%	-14.7%	-3.4%
Belgium	1.0%	0.6%	-18.5%	-26.9%
lorway	0.7%	0.5%	-18.1%	-8.6%
reland	0.5%	0.4%	-17.7%	-25.3%
srael	0.5%	0.4%	-14.4%	-5.5%
Austria	0.2%	0.2%	-20.7%	-27.4%
lew Zealand	0.2%	0.2%	-6.6%	-4.0%
Portugal	0.2%	0.1%	-14.3%	-11.1%
otal EAFE Countries	100.0%	67.5%	-12.5%	-13.8%
Canada		6.5%	-15.3%	-17.2%
otal Developed Countries		74.0%	-12.8%	-14.1%
China		7.9%	-10.7%	-18.9%
Corea		3.6%	-13.1%	-20.9%
Taiwan		3.0%	-13.7%	-8.9%
ndia		2.4%	2.5%	-7.3%
Brazil		2.0%	13.4%	-0.5%
South Africa		1.6%	-3.8%	-24.8%
Russia		1.0%	-9.0%	-0.7%
<i>M</i> exico		0.7%	-18.8%	-15.5%
/alaysia		0.6%	-5.8%	-6.0%
Thailand		0.6%	-10.2%	-5.5%
ndonesia		0.6%	9.7%	-9.2%
Poland		0.3%	-3.0%	-12.9%
Philippines		0.3%	5.3%	-16.5%
Qatar		0.3%	8.4%	29.8%
Chile		0.3%	-8.7%	-19.7%
Inited Arab Emirates		0.2%	-5.5%	-7.7%
Turkey		0.2%	4.8%	-41.4%
Colombia		0.1%	-19.0%	-11.5%
Peru		0.1%	-2.9%	1.6%
lungary		0.1%	5.9%	-6.1%
Greece		0.1%	-16.0%	-36.8%
Czech Republic		0.0%	-8.7%	-4.5%
Egypt		0.0%	-9.4%	-14.0%
Pakistan		0.0%	-22.4%	-34.8%
Total Emerging Countries		26.0%	-7.5%	-14.6%
Fotal ACWIxUS Countries		100.0%	-11.5%	-14.2%

Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD) As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Page 66 Services sector.

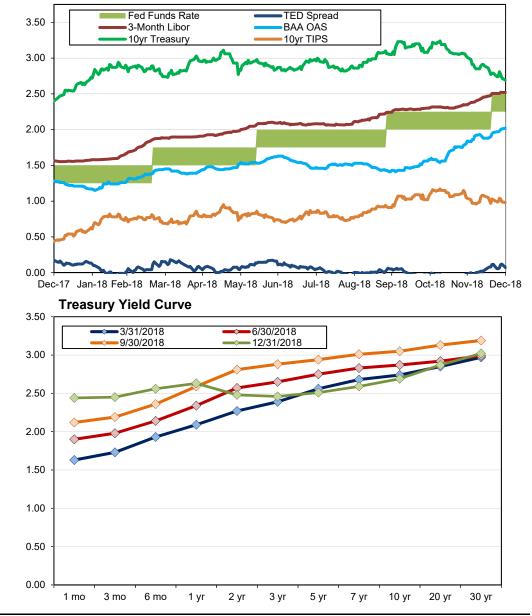
- Broad fixed income benchmarks had mixed results during the 4th guarter. Interest rates rose across short-term maturities, but fell on those on the middle and long end of the US Treasury Yield Curve. The Federal Open Market Committee (FOMC), decided to increase short-term interest rates by 25 basis points at their December meeting citing the strength of the US economy which caused an increase in short-term interest rates, but equity market volatility led market participants toward less volatile assets, pushing rates lower on maturities greater than 1-year. This was the fourth rate hike of 2018. The current Fed Funds Rate target range sits at 2.25%-2.50%. This caused continued flattening in the yield curve with some moderate inversion, which happens when short-term maturities have greater yields than long-term securities, in the middle of curve. The difference in yields between the 2-year and 10-year Treasury now sits at just 0.21%. Historically, an inverted yield curve has signaled a greater probability of a recession. The Fed is also continuing the reduction of the size of its balance sheet by slowing its pace of reinvestment as the securities it holds mature. However, the Fed did lower its guidance for future rate increases in 2019 following a reduction in expectations for GDP and inflation. The Fed is now projecting just two additional interest rate increases in 2019. The Bloomberg Barclays US Aggregate Index was positive during the quarter, posting a 1.6% return, but was flat, returning 0.0% over the 1-year period.
- Within investment grade credit, higher quality issues outperformed lower quality issues as investors preferred more conservative securities. On an absolute basis, without negating the duration differences in the sub-indices, AAA rated credit was the best performing investment grade credit quality segment returning 2.3% for the quarter, while Baa was the worst performing, falling -0.9%. High yield debt trailed investment grade credit as spreads widened the most for these issues, returning -4.5%. Returns are mixed for the investment grade quality segments when viewed over the 1-year period with higher quality issues outperforming lower quality securities. High yield performed well relative to lower quality investment grade debt due to the relatively strong returns experienced during the first three quarters of 2018.
- During the 4th quarter, the more defensive Treasury and mortgage backed sectors of the Bloomberg Barclays US Aggregate Index's three broad sectors were the best performers returning 2.6% and 2.1% respectively. Investment grade corporate credit underperformed, returning -0.2%, as credit spreads widened considerably during the period. This trend carried through to the 1-year period as both Treasuries and mortgage backed securities outperformed both investment grade and high yield corporate debt. Calendar year 2018 performance for the Treasury, mortgage backed and investment grade corporate issues was 0.9%, 1.0% and -2.5% respectively. US TIPS returned 0.4% and -1.3% for the 4th quarter and 1-year period.





- Global fixed income indices continue to struggle relative to their domestic counterparts, underperforming during the 4th guarter. These indices have lower vields and the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. During the 4th quarter the USD strengthened against most other currencies, negatively impacting the returns on global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was 0.9% and -2.1% for the guarter and 1-year period respectively. As the global economy continues to recover, several international central banks have started to move toward less accommodative postures. Notably, the ECB, began to slow its monthly bond purchase program in September, reducing new purchases to 15 billion euro per month from 30 billion euro per month and ended the program entirely at year end. However, they have indicated a continuation of reinvestment in maturing securities and would likely not raise interest rates from current levels until summer 2019. The Bank of England and the Bank of Japan made no major policy changes during the guarter as they continue to review macroeconomic data within their respective countries.
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) fell during the 4th guarter after rising steadily through most of the year as investors moved to safe haven assets during the period, ending the year at 2.69%. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. This line illustrates a relatively tight range in credit spreads throughout most of 2018. but highlights an abrupt increase during the 4th guarter as investors moved to higher quality assets. This increase is equivalent to an interest rate increase on corporate bonds, which produces an additional headwind for corporate bond index returns. These credit spreads have widened by about 59 basis points over the last 3-months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate (four increases in the last twelve months) due to the continued tightening of US monetary policy.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. As mentioned, the yield curve continues to flatten as yields on shorter-term maturities have risen more than interest rates on the long end of the curve. The upward momentum of interest rates as well as a general flattening of the yield curve are clearly visible over the last twelve months with some minor inversion visible in the middle of the yield curve.

1-Year Trailing Market Rates





Disclosures

Disclosures as they pertain to GHA balanced account:

• Due to the balanced account, Total Equity, Total Fixed Income Composites, GHA LCG, and GHA EXCL A+ returns are shown as segment level returns that do not include their respective cash balances and returns prior to 12/31/2017.



Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.



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